

Panay Eco-Social Conservation Project
(PanayCon)

Seventeenth Annual Report

January 2014

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Under the umbrella of the NGO PhilinCon

In close cooperation with

Department of Environment and Natural Resources (Philippines)
University of the Philippines, Diliman, Quezon City (Philippines)
Frankfurt Zoological Society (Germany)
Ruhr-University Bochum (Germany)
GIZ (Germany)



Front cover clockwise - a plethora of new species and new distributional records

Upper right: **Female of *Lentipes mindanaoensis*, a rare Sicydiine goby of the Philippines;
new distributional record for Panay**

Middle right: *Australatya* sp. nov., first record in the Philippines

Lower right: *Macrobrachium gracilistrostre*, new distributional record for Panay

Lower left: ***Rhyacichthys aspro*, a scarcely known gobioid of the upper river reaches on
Panay**

Middle left: **Male of *Lentipes mindanaoensis***

Waterfall after photo of Isabell Frank

See Chap. 3.1 Conservation Research

Animal photos courtesy Maren Gaulke, Munich; art work by Helga Schulze, Bochum

Impressum:

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Pandan and Bochum, January 2015

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Seventeenth Report 2014

An Update and Thorough Revision of the ‚Sixteenth Report‘ 2013

Title of Project and Time Period:

Panay Eco-Social Conservation Project (PanayCon). The time period covers the year 2014.

The project's work is formalised under the aegis of a Memorandum of Agreement between the DENR and Ruhr-University Bochum, renewed in 2012. A collecting permit, covering collecting (blood of birds, plants, ectoparasites), and potential prey of the Marine Toad or Cane Toad (*Rhinella [Bufo] marinus*), locally known also as 'Hawaiian Frog', is in the making. A dement with opportunistically obtained specimens (e.g. road kills) that represent new species or a new distributional record is in the pipeline. - Links with many environmentally concerned agencies/ institutions are continuing to thrive and many others are developing: Erwin-Warth-Stiftung, President Hilde Stühlinger, and the CAPE Foundation, President Macrina P. Lovina, are absolute vital for the project; the CAPE Foundation is aiming at costal development including the instruction of fishermen and the conservation of marine wildlife. An further befriended supporter of the project is Leocadio F. Dioso. He hosts us by providing office space in the Leocadio Alonsagay Dioso Memorial Public Library, Pandan, Antique, Philippines. Furthermore, talks has been finalized with the University of the Philippines, Diliman, Quezon City, by hiring Prof. Dr. E. Curio as Visiting Professor to lecture, give seminars and supervising of Philippine Bachelor and Masters Students.

In the 15th report the plans of the filippinization of the project were detailed, i. e. the stepping down on foreign personal to give way to key personal being Filipinos. The plans received a heavy blow when the management, including a German, found responsible for embezzlement of funds. The ensuing chaos made three quarters of the staff jobless while the segment of the reha and research facilities (8 people) by funds regenerated by Prof. Curio could be remained until now. The case against is wrong-doers came to ends preliminarily. The FZS recovered its budget almost completely, but had fired to the management staff under the suspicion of embezzlement of their funds.

In the wake of this upheaval consultations led to an organization of staff which emerged as PhiliCon with project PanayCon. In 2014, a new manager was elected leading a new organizational structure (**App. 1**). The CAPE Foundation was no perspicacious to render the jobs of seven FRs who even deputed as WEO (Wildlife Environmental Officer).

Sad to say, BioCon, an NGO and earlier outgrowth of PESCP (now PanayCon), failed all along with its mandate of strengthening PESCP financially since its erection 13 years ago. Accordingly the founding of a new NGO PhilConserve by concerned citizens in 2005 laid the ground for fostering the hope for effective biodiversity conservation in Panay; preparations toward fund-raising have been promoted by members of the BOD. To advance on within-country support by non-governmental bodies born out through an on-going correspondence with the BOD of BioCon, now in always entering in 13th year, so a far without success.

PanayCon gratefully acknowledges again the factual and moral support received from the LGU of Pandan. I take this opportunity to extend my deep-felt gratitude to *Hon. Julius Tan*, Municipal Mayor of Pandan, and the Head of the Pandan Department of Agriculture, *Mr. Ronald S. Sanchez*, for their great understanding and perspicacity of giving leeway to their staff in assisting PanayCon tremendously in its zeal of pushing its and the municipality's environment agenda. Accordingly I am pleased to mention the assistance of *Mr. Arnold Demegillo*, Pandan's MENRO and Agricultural Technologist, who took pains in advising PanayCon in community liaison matters facilitating various technical problems.

As before, Prof. Dr. E. Schneider, President of the German 'Bird Protection Committee'(Göttingen, Linum, was circumspectly funding our *ex situ* work focused on the rehabilitation and release of wildlife, specially endangered birds.

To all these people and institutions we are deeply grateful and hope that they will support the cause of both PanayCon and its umbrella NGO PhilConserve also in the future.

Editorial

The single most outstanding event in the year 2013 has arguably been the flash-flood disaster of typhoon 'Yolanda' on the 8th November. It was the severest storm ever recorded and hit the Tacloban City in northern Leyte hardest. The storm developed over in Palau, Micronesia, on the 3rd November, gained full speed that in landfall in the east shores of Leyte and Samar. Thereafter the eye of the storm passed in a northwesterly direction crossing Panay and reaching China when finally dissipated in Vietnam on the 11th November. On its way through the Philippines it threw eight big vessel on Leyte ashore, that were damaged with breakers reaching 6 m high, driven by winds speeds up to 315 km/h, destroying 90% of Tacloban, uprooting trees and severing power lines. As a result, 6,340 people died while thousands were injured, 1,061 were missing and over 11 mill people were became homeless. The damage of buildings and infrastructure pegs at 2,86\$ billions.

The climatologists are unanimously of the opinion that Yolanda connected to climate change. They predict that mega-typhoons will be more frequent and show an increase in intensity. At this scenario the environmentalists are adding that the logging of the mangrove has removed protective belts denying waves access to the hinterland. The Philippines have lost a large part of the mangrove that converted into charcoal and thus room for fish and shrimp ponds.

The help from many nations into the country started moving slowly. The help was hampered by the loss of power, the cancellations of hundreds of flight and the lack of an armada of boats. Clear water became a problem, the departments stores were looted, 18,000 sacks of aid rice was stolen in Tacloban, trucks with goods were pilfered with brute force by the hungry.

When I started a rescue action in NW Panay that helped distribute from the source mentioned I was left disappointed. When I wrote to 20 German organizations that had backed up the teams in 'Deutschland hilft' ('Germany helps'), asking for help for Panay, I found out that the assistance consisted of a 'Seminar' (!) that was least needed in the fight for survival. With the

help of my foundation I quickly set up a account in my bank so that the people would donate money. In a short time we had assembled an excess of 5,000 EUR that were send to Rhea Santillan, our bookkeeper, for distribution among the staff to help where needed most: To repair houses, a piggery, and the station that was severely hit and restoring an aviary had been smashed under a tree (see pictures in the Manager's Report). Among the inhabitants of the aviaries only one Tarictic Hornbill had died. – The forest in the upland of the NW Panay Peninsula has suffered in a degree non-experienced before in 18 years: The trees became defoliated and the forest appeared open and branches were strewn everywhere.

The memory of the deluge lasts forever by those who were more affected and in those inhabitants whose houses had been furbished.

Executive Summary

1. Conservation and Rehabilitation

1.1 Manager's Report

The gradual stabilization of PanayCon since the demise of the forerunner's project (PESCP) in 2010 saw a visible expression in the hiring of a new manager. Mr. Christian Schwarz, MSc, who knew the project since the day he was hired as a PhD student. He rejoined the staff in a period of a financial bottleneck when curtailing the project's activities; the conservation activities in the Panay Mountain Range (PMR) were given up due to shortage of funds. The manager's task comprised fund raising as eminent role of the project's agenda. Illegal logging activities and the deployment of the project's Forest Rangers (FR) were given top priority though their numbers were severely down-sized. The timber poachers were operating more sophisticatedly as never before and the reduced number of FRs is painfully felt. Equally frustrating is the increase of wildlife poachers; the numbers of confiscated Dulungans (*Aceros wadeni*) has risen and given the FRs a hard time. – After an incipient start in 2011 the biodiversity agenda of the government-funded GIZ came to a grinding halt in 2014. The manager, together with Prof. Curio, was mandated to survey the endangered vertebrates and to selected groups of invertebrates in the PMR. After two transect works straddling the PMR the study were abandoned. Nothing of substance has been achieved through the GIZ running the ForClim Panay Project as is was called. But the final report, supposedly including recommendations, has not been prepared as yet; it would rely on the identification of vertebrates in the long run. - With the first tasks tackled by the Manager the food supply system of the Station Sibaliw was reorganized, cutting down the wasteful management and buying food more economically; as a result, the food supply increased it efficiency and lessened unnecessary wastage.

1.1 The Cane Toad project – an update

As before, new plots were set up in the forest near the Station Sibaliw and in Lahang, to monitor the diet of the Cane Toad. The ongoing field work was supplemented by the sorting

of numerous samples of food animals collected with Barber traps and extractions with Winkler devices. Accordingly, an array of 12,377 specimens of food animals in 321 morphospecies was achieved. These were preliminary results. The Shannon-Wiener Index, a measure of the toad's diet diversity was higher in toad-free, undisturbed control plots than in non-treatment forest plots inhabited by toads. Furthermore, there was a tendency towards higher species evenness (A measure derived by the Shannon-Wiener Index) in toad-free plots, indicating that some taxa may be more affected by the presence of the toads than others.

1.2 Law enforcement report

The FRs were duly deputized as WEO (Wildlife Enforcement Officer) by the office of the DENR Region 6. Monitoring patrols were undertaken in Pandan, Sebaste and Libertad (Antique) and in Nabas and Buruanga (Aklan). In 2014, cut timber, boat hulls and self-made marble guns for poaching of wildlife were confiscated. In August, the FRs attended a workshop in conservation matters in Pandan organized by the GIZ and Haribon Foundation. – In 2014 45 operations were undertaken in Pandan, Sebaste and Libertad (Antique) and Buruanga (Aklan). Again, illegally cut trees and paraphernalia confiscated and turned over to the PNP in Pandan, as before. – The operations and the FRs conducting them and including their successes were itemized in a table spanning 18 pages.

1.4 Animals under the care of PhilinCon in 2013

Animals (species, sexes, age, ring no. are applicable, previous owners, data of admission) in the facilities of the Station Sibaliw (acclimation and release facility), in Bulanao Rehabilitation Facility, and in Maga-aba Rehabilitation Facility were tabulated. The release of three over-due Dulungans had to postponed for four years in a row. Unfortunately the release permit of the DENR Region 6 was received too late each year as to fully check for infectious diseases and/or the time-widows was closed because of inclement weather conditions. - The rehabilitation/ release comprised of a snake, a Hawksbill Turtle, raptors, owls, crows, Dulangan and Tarictics, and Spotted Deer.

2. Conservation Research: Taxonomy and Biodiversity

2.1 Freshwater fauna of Panay: preliminary survey on fish and shrimps

The survey is the combined result of searches over the last few years of Arnold Demegillo (MENRO of Pandan), Maren Gaulke (the project herpetologist), and Gersom Operiano, a gifted field assistant. The results contain a number of rivers and rivulets in North and Northwest Panay. The faunistic findings comprise of species of Rhyacichthyidae, Eleotridae, and Gobiidae, and various other fish groups, native or endemic to the whole region in SE Asia. Brief sketches of the ecology were given including the pointers on related species within or outside the Philippines. – An account is also given of the freshwater shrimps. Groups

contain species of Palaemonidae and Atyidae in need of technical description. – The two fishes and two shrimps are illustrated on the front cover.

3. Behavioural Ecology

3.1 Avian resource defence against an insect competitor and a cognition problem

A Orange-bellied Flowerpecker (*Dicaeum trigonostigma australe*) male, as compared to a female, attacked a Giant Carpenter-Bee (*Xylocopa latipes*) exploiting the nectar resource on a flowering tree, the first observation of its kind in the Old World. The perceptual mechanism underlying the recognition of the bee as a food competitor is conceptually identified as ‘action-based’; the action would be the exploitation of the same food source by the bee. The alternative hypothesis of an ‘individual-based’ mechanism, also called ‘releasing mechanism’, tuned to hundreds of species competing for food is rejected; parsimony would argue against the assumption of a vast array of species and/or sexes to such mechanisms to have to be tuned.

4. Genetics of Birds

4.1 Intraspecific rearrangement of duplicated mitochondrial control regions in the Luzon Tarictic Hornbill *Penelopidae manillae* (Aves: Bucerotidae)

An investigation of the mitochondrial DNA discordance in a Luzon Tarictic, comparing their characteristics within and across individuals, an interchange of two control regions, the first observation in a bird species. An evolutionary origin and discussed as well as application of the control region sequences as a marker in population genetics and phylogeography.

1. Conservation and Rehabilitation

1.1 Manager’s Report

by Christian J. Schwarz, MSc.

This is the first manager’s report I am issuing since I took over the position in July 2014. However, I had already spent most of my time on Panay since 2010, in the course of my PhD project on the diet of the cane toad. So, I have been with PhilinCon (Philippine Initiative for Conservation of Environment and the People, Inc.) since its beginning, sharing both its successes and problems encountered on the way. One problem I was instantaneously faced with was the lack of proper funding. When compared to our activities in the financially stable years 1995 to 2009, this shortage of funds had a negative impact on conservation efforts on Panay in particular, and the Philippines in general.

In fact, our activities are now restricted to wildlife rehabilitation, forest monitoring, and scientific research, all of them basically restricted to the Northwest Panay Peninsula and some

portions of southern Pandan. PanayCon had to pull out completely from the Central Panay Mountain Range, including the Dulungan or Writhed-billed Hornbill (*Aceros waldeni*) nest-guarding scheme. Since 2009, poaching of nestlings of this species, as well as of other birds, snaring of Warty Pigs, and illegal logging have increased substantially in both areas, as discovered by our Forest Rangers, and experienced by myself during three years of research on the NWPP.

Conservation in the NWPP Natural Park is now basically a matter of the Protected Area Management Board (PAMB), headed by the Regional Executive Director of the DENR, but executed under the supervision of Protected Area Superintendent Rhodel Lababit. The PAMB decides over long-term activities in the Protected Area; this concerns PanayCon's scientific and conservation research as well as large-scale, more or less sustainable "development" projects, like mining activities or wind turbines. The declaration of the NWPP as a PA under the NIPAS act in 2005 has still not passed the Congress. However, this delay allowed for adjustment of the initial, very coarse boundary of the PA to include additional areas of good forest. The area of the PA now encompasses 13.000 ha. The true extent of forest is unknown, but probably exceeds 6.000 ha. Despite this success, the PAMB is mainly a decision-making organ. It is not properly equipped or funded to actually implement conservation activities. Therefore, forest monitoring still largely relies on a core team of six PhilinCon FRs. These FRs are funded by our partner, the CAPE Foundation, headed by Macrina P. Lovina (Makati, Manila). Without CAPE's support, no forest monitoring activities whatsoever would be conducted on the NWPP.

Illegal logging is well-organized now: the operators are usually armed, use silencers on their chainsaws, and informants at strategic points warn them when FR or PNP activities are detected. This makes it extremely difficult (and dangerous) for our small team to effectively intercept logging or hauling activities. Nevertheless, we can account for several successful apprehensions of illegally cut lumber (see below). Animal poaching is much more difficult to stop. Finding snares is basically a matter of chance, and poachers using guns are mobile and difficult to corner. Besides, local people are much more willing to report timber than animal poaching. Poachers also roam in the environs of Sibaliw station, as evidenced by discoveries of snares, animal remains, sheds, and other indications of the poachers being active in the area. We have always duly reported such discoveries to the DENR, but we do not know whether corrective action has been taken by the latter. Recently, our rangers have also found evidence of an organized team of around 6-8 poachers, mainly from Cubai and Nabas, carrying firearms and snare equipment, and hunting for Tarictic Hornbills, monkeys, and Warty pigs. While warty pigs are usually hunted for meat, their tusks as well as the monkey skulls and the Tarictic beaks and legs are sold to unknown buyers in Boracay. There, they are converted 'trophies' into souvenirs and sold to unknowing tourists.

Also, the number of donated or confiscated Dulungans rose from zero between 2004 and 2011 (during the nest-guarding scheme) to four since 2012, indicating increased poaching pressure on this critically endangered hornbill species. Our nest-guarding scheme proved very successful, both in terms of providing data that allowed an estimate of the population size on Panay, as well as protecting this population. However, it was also criticized as “unsustainable” by a development program evaluator. Such comments bypass biological reality: development programs have to be sustainable; conservation programs (allegedly) do not! Their success is only measured in terms of survival of the targeted species. This example shows how much damage to conservation can be done by recommendations of biologically untrained professionals in highly influential positions.

The biodiversity assessment in the course of the ForClim Panay Project, which was agreed upon in a contract between PhilinCon and the GIZ in 2011, could not come to a fruitful end.



Fig. 1 Confiscated male Dulungan in the Mag-aba facility.

Only two surveys could be conducted by PhilinCon contractors. This was, however, neither the fault of PhilinCon nor GIZ. In April 2013, the DENR informed us that under a new policy the collections obtained during the surveys would no longer be covered by our existing Gratuitous Permit, last issued in January 2013, and that we need a new permit to cover the remaining surveys. This happened despite of the fact that the targeted groups were covered by the original GP, and that had we acquired all necessary PICs in advance. We duly and immediately submitted an application for the required new permit (including the necessary PICs).

However, the requested new permit was never granted despite a number of follow-ups and requests for intervention by the GIZ. In July 2014, we were informed by the GIZ that it was terminating the ForClim Project and our involvement in it. This is all the more regrettable, since our preliminary results indicate a considerable degree of faunal turnover from north to south, and thus the undeniable conservation value of each of the remaining forest blocks. In terms of conservation success, that is protection of the remaining CPMR native forests, nothing has yet been achieved in the three years duration of the ForClim Panay Project, but the final report, supposedly including recommendations, has not been prepared as yet.



Fig. 2 PhilinCon team conducting a biodiversity survey in the CPMR.

Fig. 3 Paradise Lost – heavily degraded landscape in the central CPMR.

Protection of the forests remnants is all the more important in the face of accelerating Climate Change and its consequences. One of these consequences, in the form of super typhoon Yolanda (international name Haiyan), struck the archipelago on November 8, 2013, with world record wind speeds of over 300 km/h. It was predominantly the archipelago's east coast which suffered the most damage, notably hitting Tacloban City on Leyte, but Panay was also heavily affected. The extensive damage to homes, infrastructure and agriculture, with a total value of more than US\$ 1 billion – in addition to deaths and injuries of more than 7,000 persons – were caused not by floods, as in the case of typhoon Frank in 2008, but by the strong winds. Consequently, they mostly consisted of blown roofs and uprooted trees. In Pandan, the Pandan Bay Institute, the Pandan Central School, the Liberman Sports Complex and the Leocadio Dioso Public Library (where PhilinCon's office is located) suffered the most damage, in addition to many private households. PanayCon's Sibaliw Station and its rehabilitation facility were also significantly damaged, causing the death of one Tarictic Hornbill. One human casualty was reported from the municipality of Pandan. Fallen trees and electric posts damaged power supply and electronic communication devices. It took eight weeks to restore power, cell phone and internet connection.

In an attempt to provide quick help for affected PanayCon staff and other people affiliated with the project, donations from concerned German citizens and organizations were channeled to Pandan, in order to be widely distributed. The donations, totaling PhP 296,606, were sent in three tranches on November 19, December 7, and December 30. A fourth tranche amounting PhP 28,500 will reach the Philippines in January 2015. This is only a small part of the huge logistic and financial support the Philippines has received from all over the world. Typhoon Yolanda and its consequences received wide western media coverage, which helped to raise awareness and to mobilize financial and other needed support worldwide.



Damages in Pandan caused by typhoon Yolanda: Fig. 4 (upper left) Poblacion Pandan, Fig. 5 (upper right) Pandan Bay Institute, Fig. 6 & 7 (middle row) Pandan Central School, Fig. 8 (lower left) Leocadio Dioso Public Library, Fig. 9 (lower right) Office of PhilinCon in the library.



Damages at Sibaliw: Fig. 10 Demolished station wall, Fig. 11 hornbill cage destroyed by falling tree.

The primary forest on the NWPP was also severely damaged. Although rainforests in the cyclone belt are adapted to the frequent occurrence of tropical storms, typhoons of this magnitude are usually a rare event. It remains to be seen how the already fragmented and highly disturbed forests of Panay will cope with the postulated increase in both typhoon density and magnitude due to increased sea surface temperatures. The Tacloban disaster suddenly and tragically brought the consequences of reef destruction and the irresponsible logging of mangrove and hill-slope rainforests back to attention. These forests are more than reserves of an “uninteresting” biodiversity, a useless nuisance that is best converted to timber, charcoal, or shrimp ponds. They actually can save human lives. Why does it always need such a catastrophe to bring habitat conservation back to the desks of politicians? This year, a coastal rehabilitation program has been initiated by the Philippine government as part of the National Greening Program. It is implemented by the DENR and involves the planting of mangroves and other coastal tree species for beach protection purposes.

When I returned to the Philippines in July 2014, most Yolanda damages had already been restored. However, Sibaliw station, including its solar power system, still required some attention. The humid climate takes its toll on technical equipment. It also became evident, even during my previous stays, that the food catering arrangements for the station and the organization of porterages had suffered from increasing inefficiency over the years, both in terms of money wasted and of quality of the food supplies purchased. My first duty over the course of the next weeks was to increase efficiency and lessen unnecessary wastage by re-organizing the Sibaliw food supply system. Weekly supplies are now controlled by PhilinCon office staff, basically consisting of Ms. Rhea Santillan and myself. The new measures have already proved successful, but there is still room for further improvements.

Before concluding, I would like to acknowledge the continued generosity of our long-term supporter, Mr. Antonio de Dios of Manila, who recently donated a significant amount to PhilinCon, as in the years before. Without such support, our work would not be possible. The months to come will be mainly devoted to project proposals and further fund-raising. Several ideas were discussed in the latest PhilinCon Board Meeting on October 15, the implementation of which is still pending. Obtaining release permits for three of our Dulungans and some raptors is also on the agenda. The upcoming months will certainly be busy.

1.2 The Cane Toad project – an update.

By Christian J. Schwarz, MSc.



Fig. 12 Juvenile Cane Toad choking on big katydid meal.

The Cane Toad is considered one of the 100 most invasive animal species in the world. Initially introduced as a biological control agent on many islands of the Indo-Pacific and in Australia, this toad species soon became itself a threat to the respective autochthonous faunas, due to a high reproductive potential, a broad diet, and effective skin toxins. This project investigates the impact of this invasive anuran on the autochthonous leaf litter fauna of Panay and surrounding islands by means of exclusion experiments. Two primary forest sites, one secondary forest site, and three primary forest controls were established in the forest around Sibaliw. An additional secondary forest site is found at Lahang. Each site is made up of two - toad-free controls - or three - forests inhabited by toads individual plots. Eighty six Barber trap samples and 35 Winkler extractions have been collected so far, in addition to 25 toad stomach samples. Even though field work and data collecting is still ongoing, 20 Barber trap samples were partially processed already and allow preliminary, albeit incomplete, insights into the effects exerted by the toad. Up to now, the samples contained 12,377 specimens presenting 321 morphospecies, obtained during 729 cumulative sampling days. Of the groups processed so far, rove beetles (Staphylinidae) and ants (Formicidae) accounted for 42% and 29% of individuals, and 28% and 39% of species, respectively. With 15% of all individuals, the recently described endemic Panay landhopper, *Curiotalitrus curioi*, was also relatively abundant. The Shannon-Wiener diversity index was significantly higher in toad-free, undisturbed control plots than in non-treatment forests inhabited by toads. There was also a trend towards higher evenness in toad-free plots, indicating that some taxa may be more affected by the presence of the toads than others. However, all these results are highly

preliminary. A definite assessment will only be possible after all samples have been processed. Some hyper-abundant groups like spiders and springtails (Collembola) were not processed yet at all and may significantly affect the final results.

Whatever the final outcome, this study is the first worldwide to quantify the true impact of the Cane Toad in its role as a predator on a large scale, and will help to assess the potential threat of this invader to insular rainforest environments.

1.3 Law enforcement report

by E. Sanchez Jr., C. J. Schwarz, R. Santillan, A. Ebon, and F. Guillermo

Introduction

The implementation of “law enforcement activity” is one of the main sub-projects of PhilinCon, administered by its operational arm PanayCon. The sub-project workers are otherwise known as “Bantay Gubat” or Forest Rangers/Guards. To legalize the operations undertaken by our forest rangers against the illegal activities destroying our forests, the rangers are duly deputized as WEO (Wildlife Enforcement Officer) by the office of the DENR Region 6. The wildlife qualification as WEO is renewed every year, and valid in the municipalities of Libertad, Pandan, and Sebaste. In contrast to adequate funding in previous years, our FR team currently comprises only six full-time rangers. Additional rangers may join the team on a daily basis, if necessary. Despite been a small team and equipped with limited allowances, our FRs account for several successful apprehensions outlined as below.

Background

In the year 2001 the first and at the time only forest guards were hired as so-called “forest monitor”. When his efforts were recognized as a success, forest monitoring was deemed as one of the top priorities among the project’s objectives, in order to help our partner in conservation, the DENR, to protect the last lowland forest of the North West Panay Peninsula. The number of FRs was later increased to 18. Due to their profound knowledge, we hired former hunters, timber poachers and other people previously engaged in other illegal activities harming our precious forest in the NWPP and the CPMR. By acting as FRs, they could receive an income and bring in their experience full justification.

Unfortunately, in the last quarter of 2009, almost all rangers lost their jobs due to mismanagement by previous project managers, eventually leading to the pull-out of a major sponsor. Initially, despite receiving no payment, our FRs continued to undertake operations on a voluntary basis upon could of them could be paid and got firmly hired.

Achievements 2013

In the year 2013, our rangers had 32 operations, undertaken in the municipalities of Pandan, Sebaste and Libertad (Antique), and Nabas and Buruanga (Aklan). Illegal logging and poaching were documented seven times. On three instances, a total of 457.5 board feet of illegally cut timber, and four boat hulls could be apprehended and turned over to the

PNP/DENR. Additionally, four self-made marble guns for poaching have been confiscated. On August 29 to 30, our rangers attended a workshop at the Pandan Town Hall organized by the GIZ and Haribon Foundation.

Achievements 2014

This year, our rangers had 45 operations, undertaken in the municipalities of Pandan, Sebaste and Libertad (Antique), and Buruanga (Aklan). Illegal logging and poaching were documented 11 times. On seven instances, a total of 129 (!) pieces or logs of illegally cut trees could be apprehended and turned over to the PNP/DENR. In a noteworthy is the canter that stopped with the help of the PNP on June 8 at Centro Norte, Pandan, loaded with 66 pieces of illegally cut Laua-an and Libtog timber. A matter of great concern were also the paraphernalia confiscated at a poachers's camp close to Sibaliw Station. They poachers belonged to a well organized and heavily armed group of from six to eight poachers from Nabas, Aklan, and Cubai, Libertad, who are regularly hunting Warty Pigs, monkeys and hornbills for supplying the souvenir trade in Boracay.





Forest monitoring successes: Upper left: Illegally cut timber apprehended at Brgy. Buang in February 2013. Upper right to lower right: Poachers's camp in the protected area of in the NWPP. - Upper right: Cooking place. Lower left: snaring equipment. - Lower right: shotgun ammunition and feathers of poached Tarictic Hornbill.

Table 1

Forest Ranger activities in the year 2013.

DATE AND TIME	LOCATION	ACTIVITY	FOREST RANGERS /WEOs INVOLVED	REMARKS
January 12-14, 2013 8:30 A.M.	Sitio Bayang of Brgy. Luhod Bayang, Mt. Igpange, Mt. Suthon of Brgy. Duyong, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Fernandez, Freddie Matinong, Jose Domingo, Rudy Ibanez, Cerwin	The team didn't find any signs of illegal activities after a 2 nights and 3 days operation
January 26-29, 2013 8:00 A.M.	Nabas, Brgy. Nazareth Buruanga, Brgy. Bagumbayan, Buruanga, Malay, Aklan	Foot patrolling /monitoring /confiscation	Guillermon, Faustino Ebon, Armelito Jr. Alarcon, Reynold Fernandez, Freddie Domingo, Rudy Ibanez, Cerwin	2 holen/marbel guns were confiscated. Owners are known as Albert Alvarez and Randy Alvarez, both residents of Brgy.

				Tinigbas, Libertad, Antique.
February 5, 2013 7:00 A.M.	Brgy. Talisay, Pandan, Antique Mt. Sewo of Brgy. Fragante, Pandan, Antique San Andres, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Guillermo, Faustino Fernandez, Freddie Dujali, Joven	The team didn't find any signs of illegal activities after 1 whole night and 2 days of operation
February 6, 2013 7:00 P.M.	Brgy. Fragante, Pandan, Antique Brgy. Buang, Pandan, Antique	Foot patrolling /monitoring Apprehension of timber	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Fernandez, Freddie Dujali, Joven	457.5 board feet of timber with estimated value of 13,710 PHP were apprehended by the team, together with the help of PNP Pandan headed by Police Inspector Jose Partisala. The said timbers were turned over to the Brgy. Capt. of Buang for proper custody.
February 8, 2013 3:00 P.M.	Brgy. Fragante, Pandan, Antique, Brgy. Cabugao, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Guillermo, Faustino Fernandez, Freddie Dujali, Joven	One holen/marble gun was voluntarily surrendered to FRs'/WEOs' by Mr. Melchor Arcelo of Brgy. Cabugao, Pandan, Antique.
February 14-15, 2013 10:00 A.M.	Mt. Lukaba of Sitio Malumpati, Brgy. Guia, Pandan, Antique Brgy. Pinatuad, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Matinong, Jose Domingo, Rudy Dujali, Joven Ibanez, Cerwin	The team didn't find any illegal activities after 2 days and 1 night of operation.
February 18-20, 2013 9:00 A.M.	Brgy. Tagororoc, Nabas, Aklan	Foot patrolling /monitoring	Guillermo, Faustino Ebon, Armelito Jr. Matinong, Jose Domingo, Rudy Ibanez, Cerwin	After two nights of operation the team didn't find any Laua-an timber, despite previous received reports.
February 24-25, 2013 8:30 A.M.	Mt. Pangi of Brgy. Sta. Cruz, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Guillermo, Faustino Fernandez, Freddie Domingo, Rudy Dujali, Joven	The team found a newly cut Narra tree. The timber was already hauled out, so we just took some pictures of the cutting site.
March 6-7, 2013 6:00 P.M.	Mt. Sewo of Brgy. Fragante, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr, Guillermo, Faustino Matinong, Jose Fernandez, Freddie	Didn't find any signs of illegal activities after an one night operation

			Dujali, Joven	
March 7-9, 2013 4:30 P.M.	Brgy. Tagororc, Nabas, Aklan	Foot patrolling /monitoring	Ebon, Armelito Jr, Guillermo, Faustino Matinong, Jose Fernandez, Freddie Alarcon, Reynold Domingo, Rudy Dujali, Joven Ibanez, Cerwin	No signs of illegal activities found after two nights of operation.
March 30-31, 2013 2:00 P.M.	Mt. Uring of Brgy. Nauhon, Sebaste, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr, Guillermo, Faustino Matinong, Jose Fernandez, Freddie Alarcon, Reynold Paulino, Expedito Dujali, Joven Ibanez, Cerwin	A boat hull 28 ft. long and 18 inches wide made of Kalantas tree was found by the team. It has been decided to throw it into the falls. The team also found 2 small nickels and 1 axe.
April 20, 2013 12:00	Mt. Sewo of Brgy. Fragante, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Domingo, Rudy Matinong, Jose Fernandez, Freddie Dujali, Joven	No signs of illegal activities found after one night of operation.
April 23, 2013	Mt. Sewo of Brgy. Fragante, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr, Domingo, Rudy Fernandez, Freddie Dujali, Joven	No signs of illegal activities found after one night of operation, despite a previously received report of an illegally cut Narra tree.
May 27-28, 2013 2:00 P.M.	Sitio Listoga, Brgy, Sta. Fe, Pandan, Antique Brgy. San Andres, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Paulino, Expedito Matinong, Jose Guillermo, Faustino Dujali, Joven	Despite received reports of illegal cutting of a Narra tree, the team never heard noises produced by chainsaws during the whole night operation. However, the following day the team found an already cut Narra tree.
June 10-11, 2013 11:00 A.M.	Mt. Singarongon and Mt Panuktukan of Brgy. San Andres, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr, Guillermo, Faustino Matinong, Jose Fernandez, Freddie Tenorio, Joeserey Paulino, Expedito Dujali, Joven Ibanez, Cerwin	After 2 days and 1 night of operation the team found a Mahogany tree instead of the reported Laua-an tree.
July 17-19, 2013 8:00 A.M.	Brgy. Bulanao, Libertad, Antique -	Foot patrolling /monitoring	Ebon, Armelito Jr, Domingo, Rudy	One holen/marble gun was taken by the team.

	Sibaliw Station, Buruanga, Aklan		Matinong, Jose Fernandez, Freddie Dujali, Joven	It had probably been abandoned by the hunters.
August 09, 2013	Mag-aba Rehabilitation Rescue Facility	Received turned-over of 1 spotted deer	Dr. Enrique D. Sanchez Jr.	A wounded male juvenile spotted deer was turned over by DENR San José through CENRO June Garol to PhilinCon represented by Dr. Enrique D. Sanchez Jr., DVM, PhilinCon President. Proper medication was given to the animal.
August 15-17, 2013 8:00 A.M.	Nabas Sitio Atog of Brgy. Nazareth, Buruanga, Aklan Brgy. Pusio, Libertad, Antique Mt. Montile of Brgy. Duyong, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Fernandez, Freddie Alarcon, Reynold Dujali, Joven Ibanez, Cerwin	No signs of illegal activities found after 2 nights and 3 days of operation.
August 20, 2013 8:00 A.M.	Mt. Turayan of Brgy. Idiacacan, Pandan, Antique	Foot patrolling	Ebon, Armelito Jr. Guillermo, Faustino Fernandez, Freddie Matinong, Jose	PhilinCon was asked by MENR Officer of Pandan to check the coordinates and pictures of a cutting site where an apprehension had been done by a joint team of DENR CENRO Culasi and PNP Mobile Group Culasi, Antique. The team found out that it was not only a Dao tree that had been cut, but 6 Nato trees had also been cut down. When the team went down, they met the contingent of the DENR Region 6 headed by Fernando Fernando and Forest Rangers from DENR CENRO Culasi. They asked for a copy of our data that we had gathered, with the exemption of the GPS coordinates (because of

				GPS malfunction).
August 29, 2013 9:00 A.M.	Mt. Turayan of Brgy. Idiacacan, Pandan, Antique	Assistance to DENR Personnel	Guillermo, Faustino Matinong, Jose Mangga, Joeman	Got the GPS coordinates and took pictures of the cutting site, a day before Mr. Ernesto Legaste and Mr. Mauricio Demillo came to the office and asked for assistance of FRs/WEOs.
August 29-30, 2013 8:00 A.M.	Pandan Central Conference Hall	Workshop on the Formulation of Forest Protection and Law Enforcement Plan for the Bantay Gubat/ WEO of LGU Pandan, Antique	Forest Rangers and WEOs of PhilinCon	In response to the letter of invitation from MENRO Office, PhilinCon's FRs/WEOs attended the 2 days workshop. The workshop had been facilitated by Mr. Noel Resurrection, Ms. Ruth Martinez, Mr. Nove Calawigan, Mr. Greg Azarez and Mr. Sanny Bana, representatives of GIZ/Haribon Foundation.
September 2, 2013 10:30 A.M.	Brgy. Mag-aba, Pandan, Antique	Monitoring	Matinong, Jose Guillermo, Faustino	PhilinCon received a report about an Ughayan tree, which had supposedly been cut and sliced. The team found out that Mr. Restituto Fernando was the owner of the said tree, and Mr. Emil Daypuyart was the chainsaw owner. The chainsaw was registered, but they didn't have the permit to slice the tree but only a certification to cut. They have been advised by the rangers to stop slicing and secure first the proper documents.
September 10, 2013 8:30 A.M.	Brgy. Nauhon, Sebaste, Antique	Foot Patrolling /monitoring	Ebon, Jr. Armelito Guillermo, Faustino Fernandez, Freddie Domingo, Rudy Ibanez, Cerwin	After a whole night of forest patrols, the team reached Tlangkob river, boundary of Brgy. Nauhon and Brgy. Idio,

				Sebaste, Antique. They did not find any timber despite previously received reports on illegal activities.
September 16-18, 2013 8:30 A.M.	North West Panay Peninsula Protected Area (NWPP-PA) Sibaliw Research Station	Foot Patrolling /monitoring	Ebon, Jr. Armelito Guillermo, Faustino Fernandez, Freddie Matinong, Jose Mangga, Joeman Domingo, Rudy Dujali, Joven Santillan, Rhea	On the 2nd day of forest patrols at Mt. Jubo, the team found a Laua-an tree that had been intentionally and manually cut down by expert poachers using a bolo and/or an axe, in order to get access to Tarictic nestlings in a nesthole of that tree.
October 15-17, 2013 9:00 A.M.	Brgy. Tingib to Brgy. Patria Brgy. Dumrog to Brgy. Idiacacan, Pandan, Antique	Foot patrolling/ monitoring on sea turtles	Ebon, Jr. Armelito Guillermo, Faustino Matinong, Jose Fernandez, Freddie Domingo, Rudy Dujali, Joven Santillan, Rhea	After two nights of monitoring, the team didn't find any signs of sea turtles nestlings/hatchlings.
Oct. 20, 2013 6:00 P.M.	Brgy. Pawa., Nabas, Aklan	Foot patrolling/ monitoring	Ebon, Jr. Armelito Guillermo, Faustino Matinong, Jose Fernandez, Freddie Domingo, Rudy Dujali, Joven	Despite previously received reports from concerned individuals, the team did not find any Laua-an timber after an overnight monitoring.
October 27, 2013 12:30 P.M.	Brgy. Dumrog, Pandan, Antique	Monitoring Apprehension/ Confiscation of Narra timber	Ebon, Jr. Armelito Matinong, Jose Guillermo, Faustino Fernandez, Freddie	Together with the PNP Pandan, the team reached the Bura Area near Mt. Marubo, a reported cutting site. They found a Narra tree that had been cut down and sliced using a chainsaw. A piece of the size 2x12x7 was the only timber recovered. It was brought to the PNP Station as evidence.
November 05, 2013 9:00 P.M.	Brgy. Nauhon, Sebaste, Antique	Foot patrolling/ monitoring	Ebon, Jr. Armelito Guillermo, Faustino Matinong, Jose Frenandez, Freddie	Despite a previously received report from a concerned individual, the team did not find

				any signs of Laua-an timber at the Sebaste Cemetery after an overnight monitoring.
November 26-27, 2014 9:30 A.M.	Mt. Ka-ulan of Sitio Calabanog, Brgy. Idiacacan, Pandan, Antiue	Foot patrolling/monitoring	Ebon, Jr. Armelito Guillermo, Faustino Matinong, Jose Fernandez, Freddie Domingo, Rudy Dujali, Joven	After an overnight foot patrol, at 10:00 A.M. the team found two boat hulls with the dimensions of 13x18, made of Kalantas and Lau-an trees. At around 2:00 P.M. on the same day, the team found an additional boat hull with the dimensions of 18x32, made of Maganhop tree. Because of the heaviness of the boat hulls, the team just took pictures of them and hid them away from their original location.
November 29-30, 2014 9:00 A.M.	Sibaliw Research Station/ NorthWest Panay Peninsula	Survey of the uprooted trees caused by typhoon Yolanda. Foot patrolling/monitoring	Ebon, Jr. Armelito Matinong, Jose Fernandez, Freddie Domingo, Rudy Dujali, Joven Santillan, Rhea	Different species of trees were found uprooted within the Northwest Panay Peninsula Natural Park, especially on the trail leading up to the Research Station. The survey was made after coordinating with and upon request of PASu Rhodel Lababit.
December 14-16, 2013 5:00 P.M.	Brgy. Pawa, Nabas, Aklan	Foot patrol/monitoring	Ebon, Jr. Armelito Guillermo, Faustino Matinong, Jose Fernandez, Freddie Domingo, Rudy Dujali, Joven	Despite a previously received information from a concerned citizen of Brgy. Pawa, after 2 nights of monitoring, the team did not find the reported 2 boat hulls made of Lau-an.
December 25, 2013	Brgy. San Roque/San Juan, Libertad, Antiue	Monitoring	Matinong, Jose	Together with CENRO Vic Millezas and the 2nd Manuever Platoon 315th Mobile, headed by SPO2 Gerry Alonsagay, a previously

				reported sighting of 2 boat hulls was found negative.
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Table 2

Forest Ranger activities in the year 2014.

DATE AND TIME	LOCATION	ACTIVITY	FOREST RANGERS /WEOs INVOLVED	REMARKS
January 04, 2014 7:00 P.M.	Brgy. San Andres, Pandan, Antique	Foot patrolling /monitoring	Ebon, Armelito Jr. Matinong, Jose Domingo, Rudy Ibanez, Cerwin	The team did not find any signs of illegal activities during an overnight operation
January 06, 2014 1:00 P.M.	Brgy Talisay, Pandan, Antique	Monitoring Confiscation/ Apprehension	Matinong, Jose Dujali, Joven	After a close monitoring, 5 pieces of Dao timber with the dimensions of 2x4x16 were successfully confiscated by the PNP Pandan, headed by Chief PI Jose Partisala.
January 08, 2014 8:00 A.M.	Brgy. San Andres, Pandan, Antique	Monitoring Confiscation Apprehension	Matinong, Jose Guillermo, Faustino	After a follow-up monitoring together with PNP Pandan, headed by SPO1 Ranchez Barsubia and company, the team found Narra trees that had been logged illegally: 1 pc. timber 16x20x7 1 pc. log 26x30x7 1 pc. log 24x28x7
10:00 A.M.	PhilinCon Office L.A. Dioso Public Library Bldg. Brgy. Baybay, Pandan, Antique	Orientation on Wildlife Enforcement Officers	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Fernandez, Freddie Dujali, Joven Santillan, Rhea Domingo, Rudy Manga, Joeman Ibanez, Cerwin	WEOs IDs were given to PhilinCon WEO staff by DENR personnel in the persons of For. Amadona Rana and Ms. Selma Joy Barcival.

January 16, 2014 9:00 A.M.	Brgy. San Andres, Pandan Antique,	Follow-up monitoring	Guillermo, Faustino Ebon, Armelito Jr. Matinong, Jose Dujali, Joven	The team confirmed that the logged Narra were still there.
January 21-22, 2014 7:00 A.M.	Sibaliw Research Station NWPP	Foot patrol Monitoring	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Dujali, Joven Domingo, Rudy	The team did not find any signs of illegal activities, despite previously received reports about illegal hunters.
February 13-14, 2014 6:00 P.M.	Brgy. Duyong, Pandan, Antique	Monitoring	Ebon, Armelito Jr. Matinong, Jose Domingo, Rudy Dujali, Joven	During an overnight monitoring, the team found an Ughayan tree that had been cut down and sliced into boards. The boards had already been delivered.
February 26, 2014 6:00 P.M.	Brgy. Nauring, Pandan, Antique	Monitoring	Guillermo, Faustino Ebon, Armelito Jr, Matinong, Jose Dujali, Joven, Domingo, Rudy	Despite received reports on an illegal boat hull made of a Mugni tree, during an overnight monitoring the team could not confirm the delivery of the boat hull.
March 7-9, 2014 8:00 A.M.	Brgy. Maramig to Sibaliw Research Station (NWPP-PA)	Conduct survey on the uprooted/ damaged trees caused by typhoon Yolanda Foot patrolling/ monitoring	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Dujali, Joven Domino, Rudy Mangga, Joeman	The team found and listed different species of uprooted trees caused by Yolanda: 3 Red Laua-an, 2 Malaboyo, 1 Baid, 1 Nato, and 2 Malakbakan
March 11, 2014 7:00 P.M.	Brgy. Nauring, Pandan, Antique	Follow-up Monitoring	Ebon, Armelito Jr. Faustino, Guillermo Matinong, Jose Dujali, Joven	After a whole night of monitoring, the team did not find any Mugni boat hull, despite a previously received report from a concerned citizen. Instead, together with PNP Pandan, the team saw a tricycle with a temporary plate No. 064409, owned by Mr. Roque Carino of Brgy. Fragante, loaded with timber to be delivered to a certain Mr. Hernani Baraca of Brgy.

				Nauring.
March 14, 2014 6:30 P.M.	Mt. Muntili, Brgy. Duyong, Pandan, Antique	Patrolling, Monitoring Confiscation	Ebon, Armelito Jr. Guillermo, Faustino Domingo, Rudy Fernandez, Freddie	2 pieces of Narra boards with the dimensions of 2x8x7 were found by the team together with the PNP Pandan along the road to Mt. Muntili. The retrieved boards were brought to the PNP station for proper custody.
March 15, 2014 7:00 P.M.	Brgy. Nauring, Pandan, Antique	Patrolling Monitoring	Guillermo, Faustino Ebon, Armelito Jr. Matinong, Jose	Despite received reports from an informant about a boat hull made of Mugni being about to be delivered from Brgy. Fragante, passing Pukatod River, down to Nauring River, the team did not find this reported hull during a whole night of monitoring.
April 5-6, 2014 7:00 P.M.	Sitio Tabay, Brgy. Patria, Pandan, Antique	Foot patrolling monitoring	Ebon, Armerlito, Jr. Matinong, Jose	Despite previously received reports about Laua-an timber to be delivered from Mt. Bantulinao, Sitio San Juan, Brgy. San Roque, after two nights of operation the team did not find any traces of illegally cut timber.
April 7-8, 2014 7:00 P.M.	Brgy. Duyong, Pandan, Antique	Foot Patrolling Monitoring	Guillermo, Faustino Ebon, Armerlito Jr. Matinong, Joso Dujali, Joven Domingo, Rudi Fernandez, Freddie	Because of a report of a concerned citizen about Narra boards to be delivered from Mt. Montili (between the Boundary of Brgy. Duyong and Brgy. Tingib), the team conducted an overnight monitoring but did not find any signs of illegal activities.
April 14-15, 2014	Northwest Panay Peninsula (Sibaliw Research Station)	Foot patrolling Monitoring	Guillermo, Faustino Ebon, Armerlito Jr.	On the first day of monitoring the team

8:00 P.M.			Matinong, Joso Domingo, Rudi Fernandez, Freddie Dujali, Joven	camped overnight at Mt. Jubo and Mt. Tabyaka. During an overnight foot patrolling no signs of illegal activities could be detected. On the second day the team passed by the Station and went down to Bulanao together with Prof. Eberhard Curio.
April 30, 2014 10:00 A.M.	Brgy. Duyong, Pandan, Antique	Monitoring	Ebon, Armerlito, Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven	Monitoring was conducted after information was received from an informant through PNP Chief of Police, Jose Partisala. However, the team found out that Mahogany had been cut instead of the reported Narra tree.
June 08-09, 2014 6:00 P.M.	Sitio Calabanog, Brgy. Idiacacan to Brgy. Nauhon, Sebaste, Antique	Monitoring Apprehension	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven Domingo, Rudi Freddie Frenandez	A white elf canter with plate No. POD 845 loaded with 66 fletches of both Laua-an and Libtog timber was apprehended at Centro Norte, Pandan, Antique, through the help of the PNP Pandan, headed by their Officer-in-Charge, PI Bryan Alamo. It turned out that the drivers had been Mr. Bernie Elegino y Agravante and Mr. Bien Berte y Lomugdang, both residents of Idio, Sebaste. The owner of the timber was Mr. Oliver Berte y Lomugdang.
June 12-14, 2014 8:00 P.M.	Northwest Panay Peninsula Protected Area	Monitoring Foot patrol	Guillermo, Faustino Ebon, Armerlito Jr. Matinong, Joso Dujali, Joven Fernandez, Freddie	The team heard a gun fired at Mt. Liktonon, and heard it again on the following day. While searching the area where

			Domingo, Rudi	the gun had been fired, the team saw 2 hunters with a home-made shotgun and a 22 caliber handgun. These two hunters were seen going back to their area at Sitio San Juan, Brgy. San Roque, Libertad, Antique.
June 15, 2014 7:30 P.M.	Brgy. Tingib to Brgy. Patria, Pandan, Antique	Foot Patrolling/ Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Fernandez, Freddie	Because of previously received reports from a concerned citizen that Narra timber was to be delivered in Brgy. Patria, the team coordinated with Brgy. Capt. Hon. Carlito Garzon of Brgy. Tingib, in order to stay at his area, since it was a possible pathway of the Narra delivery. However, the team found nothing after follow-up monitoring.
July 12-13, 2014 8:00 A.M.	Brgy. Barusbus to Brgy. Inyawan, Libertad, Pandan, Antique	Foot Patrol Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven Domingo, Rudi Freddie Fermamdez	Despite of received reports about timber to be delivered, during an overnight monitoring the team did not find any signs of illegal activities.
July 19, 2014 7:00 A.M.	Brgy. Duyong, Pandan, Antique	Monitoring	Guillermo, Faustino Ebon, Armelito Jr. Fernandez, Freddie Matinong, Jose Domingo, Rudy	Despite received reports through a phone call about ongoing cutting of Gmelina trees within a timberland area (DUPA Site), the following monitoring did not produced any Gmelina boards, nor had a chainsaw been heard operating.
July 19, 2014 7:30 P.M.	Brgy. Duyong, Pandan, Antique	Foot patrolling Follow-up Monitoring	Ebon, Armelito Jr. Guillermo, Faustino Matinong, Jose Fernandez, Freddie	Follow-up monitoring/Foot patrolling was conducted. The team

			Dujali, Joven	found only 2 pieces of 2x8x8 Gmelina boards left of the 500 board feet of Gmelina timber that had already been delivered. It was owned by DUPA Chairman Mr. Rhodel Lamigas. Based on our investigation, Mr. Demetrio Francisco of Brgy. Tingib had been the chainsaw operator. It could be confirmed that it had not been the first time of illegal cutting of trees at the DUPA site.
July 19, 2014 7:00 P.M.	Brgy. Dumrog, Pandan, Antique	Foot patrol monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Fernandez, Freddie Matinong, Jose	Despite received reports from a concerned citizen on Laua-an timber, the team did not find any signs of illegal activities during an overnight patrol.
August 02-03, 2014 6:00 A.M.	Brgy. Fragante to Brgy. San Andres, Pandan, Atique	Foot Patrol Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven Domingo, Rudi Fernandez, Freddie	Despite information received from a concerned citizen regarding some illegally sliced Narra timber to be delivered, the team did not find any signs of illegal activities after two nights of monitoring/ patrolling.
August 06, 2014 7:00 P.M.	Brgy. Sto. Rosario, Pandan, Antique	Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven Rudy, Domingo Fernandez, Freddie	Despite of reports from a concerned citizen about sliced Mugis timber in various dimensions about to be delivered, the team did not find any sightings of illegal activities after a whole night of monitoring/patrolling.
August 6, 2014 9:00 A.M.	Brgy. Zaldivar, Pandan, Antique	Rescue and release of a hawksbill turtle	Dr. Enrique D. Sanchez Jr.	On August 6, 2014, a hawksbill turtle was captured by fishermen from Brgy. Zaldivar, but

				soon after turned over to PhilinCon in the person of Dr. Sanchez Jr. After 2 injections of treatment with antibacterial and fat soluble vitamins, the said turtle was released on August 8.
August 13-15, 2014 7:00 P.M.	Brgy. Barusbus, Libertad, Pandan, Antique and w/in the NWPP-PA	Foot patrol monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Joeserey Tenorio Domingo, Rudi	After a whole night of monitoring operations from Mt. Bulalis via Mt. Palhe to Mt. Tabyaka, the team did not find any signs of illegal activities in the area.
August 17, 2014 8:30 A.M.	Brgy. Dumrog, Pandan, Antique	Foot patrol monitoring that led to a successful apprehension.	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Dujali, Joven Domingo, Rudi Fernandez, Freddie	After valuable information from a concerned citizen, the following operation led to a very successful apprehension of 17 pieces of Nato boards with a total of 196 bd. ft.. Full police assistance was provided by the PNP Pandan, headed by PNP Insp. Bryan Alamo Chief of Police/Station Commander.
August 18, 2014 6:00 P.M.	Brgy. Centro Norte, Pandan, Antique	Monitoring Apprehension	Santillan, Rhea Guillermo, Faustino	33 pcs. = 342.6 bd. ft. of illegally cut and transported Mugis tree lumber were apprehended at the police checkpoint conducted by the PNP Pandan, headed by PNP Insp. Bryan Alamo. The information was gathered by the two WEOs listed in this report.
August 19, 2014 5:00 A.M.	Mt. Tawidwid, Brgy. Luhod Bayang, Pandan, Antique	Monitoring	Matinong, Jose Ebon, Armerlito Jr.	No sign of illegal activities at the area could be detected during a whole night of monitoring/patrolling.
August 25, 2014	Sitio San Juan, Brgy. San	Monitoring	Ebon, Armerlito Jr.	Despite information

3:20 A.M.	Roque, Libertad to Brgy. Patria, Pandan, Antique		Guillermo, Faustino Matinong, Joso	received from a concerned citizen regarding illegal timber to be delivered from Sitio San Juan to Sebaste, the team did not find any traces of illegal activities.
September 5-6, 2014 8:00 P.M.	Mt. Igpangi, Brgy. Mag-aba, Pandan, Antique	Monitoring	Guillermo, Faustino Ebon, Armerlito Jr. Matinong, Joso Domingo, Rudi Fernandez, Freddie	No sign of illegal activities in the area could be detected after a whole night of monitoring/patrolling.
September 10, 2014 7:00 P.M. 9:00 P.M.	NWPP-PA Sitio San Juan, Brgy. San Roque, Libertad to Brgy.	Monitoring Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi	
September 12, 2014 7:00 P.M.	Brgy. Sto. Rosario to Brgy. Mag-aba, Pandan, Antique	Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi	
September 15-16, 2014 8:00 P.M.	Sitio Kaligdon, Brgy. Mag-aba, Pandan, Antique	Monitoring	Ebon, Armerlito Jr. Faustino Gillermo Matinong, Joso Domingo, Rudi	
September 20-21, 2014 5:00 P.M.	Mt. Talangban, Brgy. Mag-aba to Brgy. Tingib, Pandan, Antique	Foot Patrol Monitoring	Ebon, Armerlito Jr. Matinong, Joso Guillermo, Faustino Domingo, Rudi	Despite received reports about illegal cutting of timber at night-time, the team did not find any sighting of illegal activities during an overnight monitoring.
September 23-2014 10:00 A.M.	Brgy. Sto. Rosario, Pandan, Antique	Monitoring	Ebon, Armerlito Jr. Matinong, Joso	Despite information received from a concerned citizen regarding the illegal slicing of a Mugni tree, the team found out during monitoring that only coconut trees were at the reported area.
September 27-28, 2014 7:00 P.M.	Brgy. Tingib, Pandan, Antique	Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi	Despite information received from a concerned citizen regarding illegal timber to be delivered

				from Brgy. Tingib, Pandan, the team did not detect any illegal activities during their monitoring.
October 1, 2014 8:00 P.M.	Brgy. San Roque, Libertad, Antique	Monitoring	Ebon, Armerlito Jr. Matinong, Joso Guillermo, Faustino	Monitoring conducted after request by PASU Rhodel Lababit
October 15, 2014 3:00 P.M.	Sitio San Juan, Brgy. San Roque, Libertad, Antique	Monitoring	Ebon, Armerlito Jr. Matinong, Joso Domingo, Rudi Guillermo, Faustino	
October 20-21, 2014 9:00 A.M.	Sitio Atabay, Brgy. Patria, Pandan to Sitio San Juan, Libertad, Antique	Foot patrol Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi	During an overnight monitoring the team did not find a reported illegally cut Kamagong tree.
October 23, 2014 10:00 P.M.	Sitio San Juan, Libertad, Antique	Monitoring	Ebon, Armerlito Jr. Matinong, Joso Domingo, Rudi Rhea Santillan	Despite received information regarding a white elf delivering illegal timber from Sitio San Juan to North Sebaste, no vehicle could be spotted during overnight monitoring.
October 25-26, 2014 4:00 P.M.	Sitio Calabanog, Brgy. Idiacacan, Pandan, Antique	Foot patrol Monitoring	Ebon, Armerlito Jr. Matinong, Joso Domingo, Rudi Guillermo, Faustino Fernandez, Freddie	The team conducted a foot patrol to Mt. Kabuluan, where a boat hull was reported to be located, but found nothing after an overnight operation.
November 03-05, 2014 1:00 P.M.	Brgy. Nauhon, Sebaste, Antique	Monitoring Foot patrol	Ebon, Armerlito Jr. Matinong, Joso Guillermo, Faustino Domingo, Rudi	Despite information received from a concerned citizen regarding the illegal poaching of timber, intended to be used as boat hull, the team found nothing after 2 days of monitoring/foot patrol.
November 12-13, 2014 9:00 A.M.	Brgy. Candari, Brgy. Sto. Rosario to Brgy. Guia	Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi Fernandez, Freddie	During an overnight monitoring conducted by the team, there were no sightings of previously reported electro-fishing in the

				area.
November 21, 2014 9:00 A.M.	Brgy. Mag-aba, Pandan, Antique	General Clean up	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi Fernandez, Freddie	General cleaning of Mag-aba Rescue and Rehabilitation Facility in preparation of an upcoming visit of tourists.
November 25-27, 2014 8:00 A.M.	Northwest Panay Peninsula Protected Area	Foot patrol Monitoring	Ebon, Armerlito Jr. Guillermo, Faustino Matinong, Joso Domingo, Rudi Fernandez, Freddie Mangga, Joeman	When the team reached Palhe Cave, they found 21 pieces of ropes, 1 cooking pot and 4 plates. These paraphernalia were presumably owned by poachers active in the area. Targeted species had obviously Warty Pigs and endangered birds, esp. Tarictics.

1.4 Animals under the care of PhilinCon

Current Year 2013

by E. Sanchez Jr., DVM

Station Sibaliw

Admission Date/Origin	Animal Species	Sex	Ring#	Remarks
Brgy. Alegre, Sebaste , Antique 2004	Dulungan (<i>Aceros waldeni</i>)	male	0031	Slated for release - target date January of 2015
June 2000 Brgy. Ildiacan, Pandan, Antique	2 Dulungans (<i>Aceros waldeni</i>)	Female Female	0035 0036	Slated for release - target date is January of 2015.
May 2002 sent up to Sibaliw 2008	Tarictic (<i>Penelopides panini</i>)	Female	0033	
June 6, 2007 Brgy. Bagumbayan, Pandan , Antique	Tarictic (<i>Penelopides panini</i>)	Female	0151	Sent up to Sibaliw by February 11, 2009
May 24, 2007 Sebaste, Antique	Tarictic (<i>Penelopides panini</i>)	Male	104	
Sent up to Sibaliw September 21, 2010	Tarictic (<i>Penelopides panini</i>)	Female	0164	Mortality due to super-typhoon Yolanda in November 2013
September 18, 2012	Dulungan			Surrendered to DENR,

Sitio Bulabog, Brgy. Balabag, Boracay Island, Malay, Aklan	(<i>Aceros waldeni</i>) (immature)			CENRO PAWCZMS Boracay through PhilinCon by Mr. Toby Mockel, and facilitated by Mr. Jason Probyn and Del Nano, owners of Nigui-Nigui Resort, Boracay Island, and Mr. Jun Aguirre from the Philippine News Agency (PNA). The hornbill has been sent to Sibaliw Station after 60 days of quarantine in Bulanao Reha Facility.
June 20, 2014	2 Dulungans (<i>Aceros waldeni</i>) (immature)	Male Female		Surrendered by Mr. J. Amar of Brgy. Importante, Mun. of Tibiao, Antique, through the efforts of Tibiao Fish Spa owner Nick Calawag of Brgy. Malabor. Mortality of 1 bird due to stress caused by environmental factors. Turn-over to PhilinCon in a DENR ceremony (DENR Caravan) in Libertad, Antique.

Bulanao Rehabilitation Facility

Admission Date/Origin	Animal Species	Sex	Ring #	Remarks
July 2011 Brgy. Calabanog, Pandan, Antique	3 Tarictics (<i>Penelopides panini</i>) (nestlings)	Male Female Female		Sent to Bulanao in August 2011. Mortality of 1 female during super-typhoon Yolanda on November 8, 2013.
November 30, 2011 San Andres, Pandan, Antique	Crested Serpent Eagle (<i>Spilornis cheela holospilus</i>) (adult)			Admitted to Mag-aba Reha. Information on the whereabouts of this bird was provided to PhilinCon office staff by our partner NGO, CAPE Foundation. The turnover to our FR's has been witnessed by the President of CAPE, Macky Lovina. Mortality due to super-typhoon Yolanda in November 2013.
December 20, 2011 Religious Group Rally against mining in Antique Province, San José Public Plaza	2 Brahminy Kites (<i>Haliastur indus</i>)			Birds were donated for rehabilitation and future release. 1 bird is a mortality of super-typhoon Yolanda.
June 20, 2014	2 Tarictics (<i>Penelopides panini</i>) (immature)			Turned over to PhilinCon by the DENR during a ceremony in Libertad, Antique. Surrendered to the DENR Office by Nick Calawag.

Mag-aba Rehabilitation Facility

Admission date/Origin	Animal Species	Sex	Ring #	Remarks
July 2007 Brgy. Pajo, Libertad, Antique	Crested Serpent Eagle (<i>Spilornis cheela holospilus</i>) (adult)		0799	Slated for soon release, targeted schedule is January 2015.
May 2011, Brgy. Fragante, Pandan, Antique	Grass Owl (<i>Tyto capensis</i>)			Surrendered to DENR through PhilinCon by Mr. Nonilon Dioso, and facilitated by SB Reynaldo Dioso and PhilinCon WEOs' together with Christian Schwarz. Slated for soon release, targeted schedule is January 2015.
August 11, 2012 Sitio Burabod, Brgy. Callan, Sebaste, Antique	3 Crows (<i>Corvus brachyrhynchos</i>)			Surrendered to DENR CENRO PAWCZMS through PhilinCon by Arnaldo Nepomuceno Hermie Yac- yac. Released after a month (30 days) of quarantine.
September 24, 2012 Poblacion, Kalibo, Aklan	Dulungan (<i>Aceros waldeni</i>) (adult)			Surrendered to PhilinCon on behalf of CENRO Kalibo by Grace Mapeso-Quimpo. The bird has probably been in captivity for 14 years, as estimated by the owner. She had inherited the bird from her father. Mortality due to pectoral muscle atrophy and bacterial infection.
January 16, 2013	Honey Buzzard (immature)			Turn-over was facilitated by Brgy. Captain of Baybay, Pandan, Hon. Michael O. Condez, Liga President of the Association of Barangay Chairmens', Pandan, Antique.
August 8, 2013	Visayan Spotted Deer (<i>Cervus alfredi</i>) (juvenile)			Turned over by CENRO San José, Antique, upon the recommendation of PAWCZMS Region 6 RTD Office (Carlo Custodio). Initially confiscated by the members of the PNP Mobile Group Bugasong, Antique, during their patrol operations in the hinterland barangays.
December 7, 2013	Changeable Hawk Eagle (<i>Spizaetus chirratus</i>) (subadult)	Female	32442 w/ Wilhelm shaven Vogel- warte Helgo-	Rescued by a fisherman from Brgy. San Andres, Pandan, Antique on December 2007. Said raptor perched on his banca and appeared weak and tired. Its last resort had been to hunt in the fish caught by the

			land: inscri- ption	fisherman out of his banca. The bird was probably unable to find prey, which had probably become very scarced due to super-typhoon Yolanda. Upon capture, the fisherman informed the MENRO (Municipal Environment and Natural Resources Officer) of Pandan, who immediately called the PhilinCon Reha in Mag-aba, Pandan. Rehabilitation and Release: The raptor was brought up to good health, and after a necessary quarantine period of 30-45 days it was finally released on January 30, through an effort of the GIZ's ForClim Project 2014. The release has been documented by a TV journalist from Germany.
July 2014	Crested Serpent Eagle (<i>Spilornis cheela holospilus</i>) (immature)			Turned over to PhilinCon after being received by our FR/WEO Rudy Domingo.
August 6-7, 2014	Hawksbill Turtle (immature)	none		Turned over to PhilinCon. The donor, Mr. Jesus Patiño, captured the said animal because it had been weak and floated on the sea surface, appearing emaciated. Treatment regime included antibacterial medications and vitamins A, D and E. Both medications have been administered intramuscularly. The turtle was released on August 8, 2014

Note: Admitted animals which are classified as “Unsuitable for release” are sent to the PAWD DENR Region 6 in Iloilo City.



Release of Changeable Hawk-Eagle in Mag-aba on January 30, 2014: - Fig. 1 Dr. Enrique Sanchez, Jr., explaining Mag-aba reha facility to local and international witnesses, including a German film team. - Fig. 2 Eagle female being released.



Fig. 3 – 6 Release of Hawksbill Turtle in Barangay Zaldivar, Pandan, on August 8, 2014.

2. Conservation Research: Taxonomy and Biodiversity

2.1 Freshwater fauna of Panay: preliminary survey on fish and shrimps

By Maren Gaulke

During the past years, we (Arnold Demegillo, Maren Gaulke, Gersom Operiano) conducted short-term surveys in different river systems in the North and Northwest of Panay, to assess the diversity of freshwater fish and shrimps. Sections of following rivers have been investigated: Alegre River (different sites at around 100 m asl), Bugang River (headwater), Buruanga River (at around 430 m asl), Egpako Area (different sites between 500 m asl and 600 m asl, Idio River (around 80 m asl), Laserna Malindog River (different sites between 70 and 100 m asl), Panakuyan River (around 350 m asl), Perfecta River (70 m asl), Sebaste River–Igpasungaw area (50 m asl), Tabusan River (different sites between 50 and 80 m asl), small rivulet at slope of Mt. Madja-as (1000 m asl).

Freshwater fish

So far, we recorded around 40 species (some species are not yet identified) of 15 different families. Many of them are migratory (or diadromous) fish, migrating to the sea for spawning (catadromous fish such as the Anguillidae and freshwater Muraenidae) or larval development (amphidromous fish as many Gobioidi, for example the Sycidiinae). Several species are introduced, either for food (e.g. the Nile Tilapia *Oreochromis niloticus* and some catfish), as aquarium fish (e.g. the Guppy *Poecilia reticulata* or the Molly *Poecilia sphenops*), or incidentally (e.g. the Climbing Perch *Anabas testudineus* or the Three spot Gourami *Trichopus trichopterus*). They can be found in the lower reaches of several rivers or in small ponds on Panay. However, we also recorded several rare and/or scarcely known species, which are native or endemic to the Philippines. Many of them belong to the Gobioidi.

Rhyacichthyidae

Rhyacichthys aspro, the Loach Goby (locally known as Dalumpingan), and the two other members of the family Rhyacichthyidae, are the most basal gobioid fish, the sister taxon to all other members of the Gobioidi. With its broad, depressed head, the large wide pectoral fins, and the flat ventral surface *R. aspro* almost resembles Janitor fish (*Pterygoplichthys*).

Even though it has a fairly wide distribution in Indonesia, Japan, Palau, Papua New Guinea, Philippines, and Taiwan, it is nowhere common. It is an inhabitant of steep and swift to torrential rocky streams, where it effectively clings to rocks and boulders with its broadened pectoral and pelvic fins and flattened head and snout. With its small ventrally-placed mouth it sucks periphyton from rock surfaces.

On Panay we usually find it in the middle and upper reaches of forest streams below small waterfalls or cascades, hiding among rocks. Due to its maximum size of around 25 cm, locals value it as food source.

Eleotridae

The Eleotridae or Sleeper gobies are mainly medium sized gobioid fish living in the lower reaches of rivers. They can be easily distinguished from the Gobiidae by their divided ventral fins, which are united in the Gobiidae. Among the different sleeper species, which we determined on Panay, there is one species warranting closer examination. It clearly belongs to the genus *Belobranchus* (the Throat-spine Gudgeon *B. belobranchus* is a widespread and common sleeper found in Indonesia, New Guinea, and the Philippines), but can be differentiated from the former by its scalation and colour pattern. Material of this most probably undescribed species is deposited in the Philippine National Museum.

Eleotridae are an important food source in hinterland barangay communities on Panay.

Gobiidae

The rivers on Panay accommodate a very interesting goby fauna. Their fused ventral fins serve as a sucker, so that they cling effectively on rocks and boulders on the bottom even in torrential river sections. Most of them are small species, feeding either on diatoms and other microorganisms growing on rock surfaces (e.g. *Stiphodon* spp.) or on small prey such as juvenile shrimps or worms (e.g. *Sicyopus* spp.). Beside of some more common and widespread species we could determine three different *Schismatogobius* species, a rather enigmatic goby genus, and recorded *Sicyopus cebuensis* for the first time outside of Cebu. The most interesting discovery certainly are several populations of *Lentipes mindanaoensis*, a species, whose description is based on just one male (collected on Mindanao, as the species name implies). On Panay it can be found in the middle and upper reaches of swift and clear high gradient streams with a rocky bottom. They live in small groups with several males and females. As many fish, they show a remarkable colour change, probably depending on their breeding status. Young males display the most vivid colouration, a bright red. This was also observed in *L. concolor* in Hawaii (KINZIE III 1993). As all members of the Sicydiinae, they spend their entire adult life in freshwater. Eggs of sicydiine gobies are usually deposited beneath rocks or boulders close to the stream bank, and are guarded by the males. The larvae hatch after a few days and drift downstream into the sea. There they spend a long time (data for most *Lentipes* are still missing, but usually sicydiine larvae spend several months in the sea), before the postlarvae enter freshwater streams. During their travel upstream they complete their development.

Among the larger gobies of Panay are at least two *Awaous* species, and four *Sicyopterus* species (one of them still unidentified).

Others

Among the non-gobioid freshwater fish on Panay are some rare and interesting species as well, most of them not recorded for Panay before. The only known Philippine distribution range of the Freshwater Moray Eel (*Gymnothorax polyuranodon*, local name “Hagmang”) was Mindanao and Palawan, before we confirmed its presence on Panay. In contrary to other moray eels, which are sometimes mentioned as freshwater inhabitants but actually are living in brackish water, *G. polyuranodon* spends most of its adult life in freshwater, travelling far inland. The Waspfish (*Tetraroge niger*; Fam. Tetrarogidae), locally known as “Lopo”, is a poisonous freshwater fish. As other members of the Scorpaeniformes they possess venomous spines in their dorsal fins. Incidents of people stepping on a Lopo while crossing a river are well known in the area. The sting usually leads to swelling of the limb and strong pain, which lasts for several days. In the Perfecta River we discovered large schools of the live-bearing halfbeak *Nomorhamphus vivipara* (fam. Zenarchopteridae). This species is endemic for the Philippines, and was formerly known from Luzon, Mindanao, Samar, and Jolo. Adults and juveniles inhabit different sections of the river. Another interesting fish group are the river pipefish. Among the different species occurring on Panay, *Microphis leiaspis* is the most common. Like seahorse, pipefish belong to the family Syngnathidae. And as in seahorse, the males carry the fertilized eggs in a brood pouch, which extends along its ventral surface.

Freshwater shrimps

Little literature on the freshwater shrimps of Panay is available. CAI & SHOKITA (2006) list nine species (4 *Macrobrachium* species, 3 *Caridina* species, and 2 *Palaemon* species) for the island. Our surveys resulted in a doubling of this number: so far we could add one *Atyopsis*, one *Atyoida*, four *Macrobrachium*, two *Caridina* and one *Australatya* species, a part of our material is still undetermined (the material is deposited in the Philippine National Museum).

Among the more remarkable of our findings is *Macrobrachium gracilirostre*, a large species with a rather spectacular, red and green striped cephalothorax and abdomen. Even though this species has a relatively wide distribution in the Westpacific region, the only published distribution locality within the Philippines is Leyte. So far we could observe this species in only one of the visited rivers. Even more interesting is the discovery of an *Australatya* species. This species became well known among hobbyists under the trivial name “Bamboo shrimp”. However, so far all specimens had their origin in Taiwan. W. KLOTZ, one of the authors of the species description (HAN & KLOTZ in print), confirmed that the specimens caught by us in a mountain river on Panay belong to this new species, and therefore represent the first record of the Bamboo shrimp outside Taiwan. The Panay specimens (deposited in the PNM) were added as paratypes to the species description.

Acknowledgements

We are grateful to M. SANTOS from the Philippine National Museum in Manila, who exported our material from Panay to Manila. P. KEITH from the Muséum national d'Histoire naturelle in Paris was of immeasurable help in identifying gobioid fish. The Messrs AVELINO, CAHILIG, MANGA, PAULINO, SALCEDO, and SINAG were our local guides, and of great help in searching for fish and shrimps within their respective areas.

Literature

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C.C. HAN & W. KLOTZ (in print): *Australatya* sp. nov., a new filter-feeding shrimp (Decapoda, Atyidae) from Taiwan and the Philippines. – Crustaceana.

KINZIE III, R.A. (1993): Reproductive biology of an endemic, amphidromous goby *Lentipes concolor* in Hawaiian streams. – Environmental Biology of Fishes, 37: 257–268.

Land- and freshwater-crab survey, update

By Maren Gaulke

Last year, M. GAULKE and M. SANTOS reported on the present status of land- and freshwater-crab surveys on Panay.

From February 22 to 28 2014, MARIVENE SANTOS from the Philippine National Museum, and HENDRIK FREITAG from the De la Salle University visited Northwest Panay, to check upon some of the interesting records of the past years. Together we visited one of the survey sites at the Laserna Malindog River, and went up to the research station Sibaliw, to conduct a survey at the Buruanga River.

During the field trips, different potamid populations were checked. The specialists from Manila confirmed that some of the potamid species belong to the genus *Mindoron*, which was previously not known to occur outside Mindoro. They also confirmed that none of the rock- and tree-dwelling *Geosesarma* species of Northwest Panay present *G. rathbunae* SERÈNE 1967, the only described *Geosesarma* species from Panay. Another tree-dwelling crab probably does not only present a new species but a new genus.

During her stay, M. SANTOS collected specimens for the species descriptions.

Literature

GAULKE, M., & M. SANTOS (2013): Land- and freshwater-crab surveys on Panay Island: preliminary results. – Panay Eco-Social Conservation Project (PanayCon), Sixteenth Annual Report, pp. 23–25.

3. Behavioural Ecology

3.1 Avian resource defence against an insect competitor and a cognition problem*

by Eberhard Curio

Abstract. An account is given on the defence of a food resource by a male of the partially nectar-feeding orange-bellied flowerpecker (*Dicaeum trigonostigma australe*) against the globally biggest carpenter bee (*Xylocopa latipes*) on Panay Isld., Philippines. In the process, the first involving an Old World bird being at the same time a passerine, the bird attacked the bee physically while it was feeding on the ball-shaped (globose) inflorescences of the tree *Nauclea orientalis* (Rubiaceae) also exploited by the defending male and a nearby female. In addition, the defender chased the bee in flight, thus preventing it from landing on the flowers for feeding. The female remained indifferent to the bee, even feeding beside it on the same flower. By contrast, in five years of field work, widely cruising carpenter bees, *X. cuernosensis* included, have never a bee being seen attacked by any bird so that the aggression reported is regarded as food resource defence. The underlying cognitive achievement is best understood by assuming an intruder ‘action-based’ threat recognition rather than an intruder ‘identity-based’ threat recognition. Birds, and also fish, are endowed with highly sophisticated ‘identity-based’ powers of identification of syntopic species and have been shown to recall the community composed of them. However, it is only through an ‘action-based’ model of cognition that birds and fish are thought to utilize the knowledge underlying a species-specific resource defence. An innate ‘identity-based’ object recognition for select community members including predators is known to exist in many cases, but it would probably not accrue the necessary flexibility to resource defence tailored species-specifically to hundreds of species arthropod nectarivores included; as such defence is known to be cutting even across animal phyla and thus exacerbating the cognitive problem for the defender if based on an intruder ‘identity-based’ recognition. – Arguments are presented in support of the idea that the observed resource defence is adaptive, thereby rejecting the ‘mistaken identity’ hypothesis of interspecific territoriality.

Ökol. Vögel (Ecol Birds) 35, 2013 (2014): 117-126 (**App. 3**).

4. Genetics of Birds

4.1 Intraspecific rearrangement of duplicated mitochondrial control regions in the Luzon Tarictic Hornbill *Penelopides manillae* (Aves: Bucerotidae)

By [Sammler, S.](#), V. [Ketmaier](#), K. [Havenstein](#) & R. [Tiedemann](#)

Abstract (authors's): Philippine hornbills of the genera *Aceros* and *Penelopides* (Bucerotidae) are known to possess a large tandemly duplicated fragment in their mitochondrial genome, whose paralogous parts largely evolve in concert. In the present study, we surveyed the two distinguishable duplicated control regions in several individuals of the Luzon Tarictic Hornbill *Penelopides manillae*, compare their characteristics within and across individuals, and report on an intraspecific mitochondrial gene rearrangement found in one single specimen, i.e., an interchange between the two control regions. To our knowledge, this is the first observation of two distinct mitochondrial genome rearrangements within a bird species. We briefly discuss a possible evolutionary mechanism responsible for this pattern, and highlight potential implications for the application of control region sequences as a marker in population genetics and phylogeography.

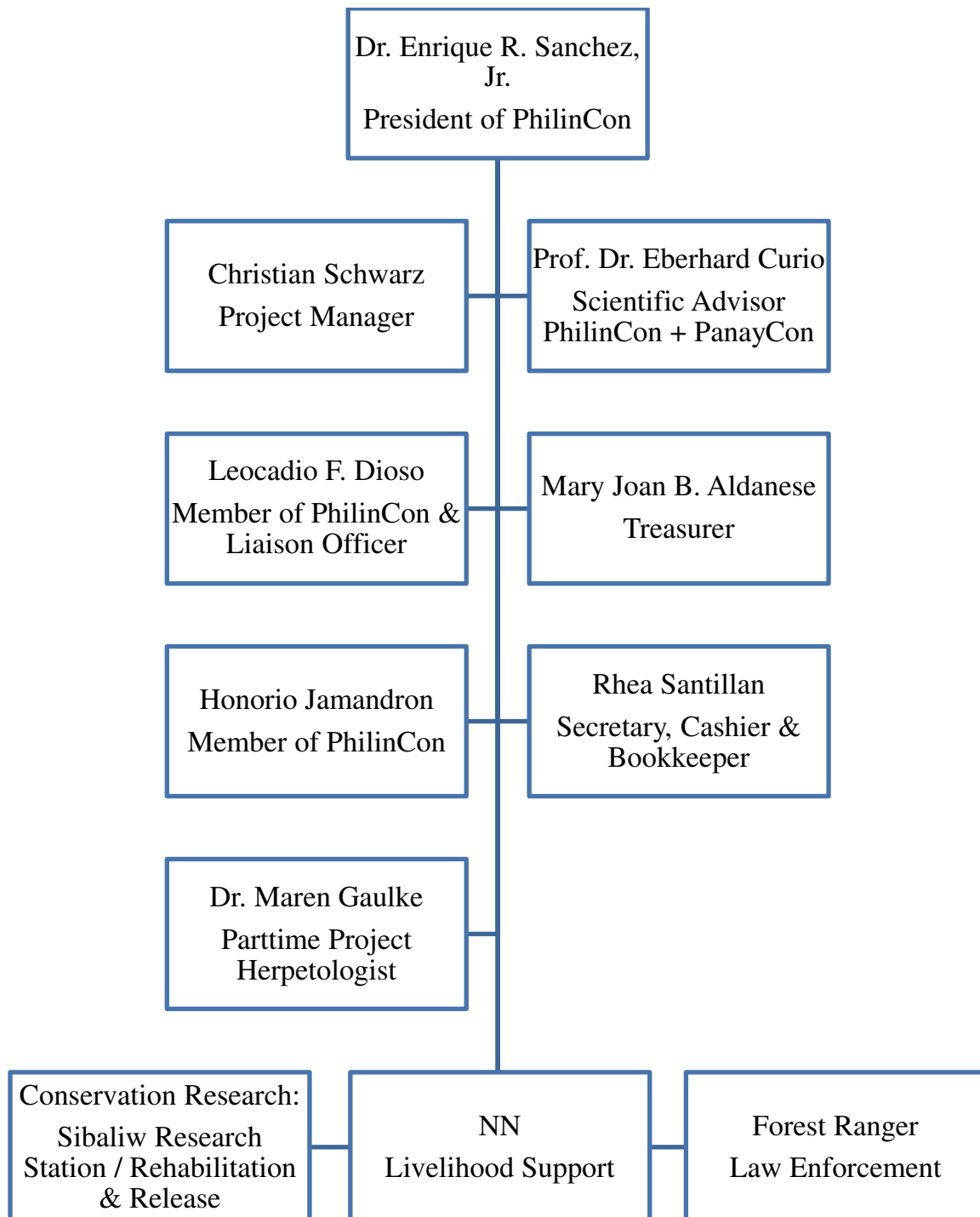
[Sammler, S.](#), V. [Ketmaier](#), K. [Havenstein](#) & R. [Tiedemann](#) (2013) Intraspecific rearrangement of duplicated mitochondrial control regions in the Luzon Tarictic Hornbill *Penelopides manillae* (Aves: Bucerotidae) [J Mol Evol](#). 2013 Dec;77(5-6):199-205. doi: 10.1007/s00239-013-9591-y. Epub 2013 Oct 19 (**App. 4**).

Appendices 1 – 4: Overview

App. 1	Staff of PhilinCon	Organisational Structure of PhilinCon
App. 2	Rhea Santillan	Visitors of Sibaliw Research Station, Year 2013
App. 3	Curio, E. (2014)	Resource defence against an insect competitor and a cognition problem. Ecol. Birds (Ökologie Vögel), 2013 (2014) 35: 117-126
App. 4	Sammler, S., V. Ketmaier, K. Havenstein & R. Tiedemann	Intraspecific rearrangement of duplicated mitochondrial control regions in the Luzon Tarictic Hornbill <i>Penelopides manillae</i> (Aves: Bucerotidae). J. Mol. Evol., DOI 10.1007/s00239-013-9591-y

Appendix 1

Organizational Structure of PhilinCon



Appendix 2

VISITORS OF SIBALIW RESEARCH STATION

Year 2013

Name, Affiliation	Date	Reason for Visit
Christian Schwarz <i>PhilinCon/Ruhr-Universitat Bochum</i>	January 10-20,2013	PhD student/Research Volunteer
Gersom Operiano <i>Research Field Assistant</i>	January 12-23,2013	Assist with site establishment
Allan Absalon <i>Research Field Assistant</i>	January 14-23, 2013	Assist with site establishment
Prof. Dr. Eberhard Curio <i>PhilnCon/PanayCon Founder Scientific Adviser</i>	February 22-March 11, 2014	Project visit
Dennis Gniech <i>PhilinCon/Ruhr- University,Bochum</i>	Feb. 18-March 11, 2013	Student/ study of Biology
Martin Blaut <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.18-March 11,2013	Student/ study of Biology
Chiara Jorczik <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.18-March 11, 2013	Student/ study of Biology
Niña Bormann <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.25-April 15, 2013	Student/ study of Biology
Stanislav Grebennikov <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.25-April 15,2013	Student/ study of Biology
Katharina Fritzen <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.25-April 15, 2013	Student/ study of Biology
Marvin Pennekamp <i>PhilinCon/Ruhr- University,Bochum</i>	Feb.25-March 22, March 25-April 15,2013	Student/ study of Biology
Rhea Santillan <i>PhilinCon/PanayCon staff/WEO</i>	April14-15, 2013	Project visit/conduct monitoring
Armelito Ebon Jr. <i>Forest Ranger/Wildlife Enforcement Officer</i>	April 14-15, 2013	Conduct monitoring
Jose Matinong <i>Forest Ranger/ Wildlife Enforcement Officer</i>	April 14-15, 2013	Conduct monitoring
Tim Mitzen <i>United States of America</i>	May 4-6, 2013	Birding

Christian Schwarz <i>PhilinCon/Ruhr-Universitat</i>	May 14-20, June 6-11, 2013	Research volunteer
Julian Steppat <i>PhilinCon/Ruhr-University,Bochum</i>	July 26, 2013 Sept.16, 2013	Student/ study of Biology
Katja Kühr <i>PhilinCon/Ruhr-University,Bochum</i>	July 26, 2013 Sept.16, 2013	Student/ study of Biology
Anne Van Der Lugt <i>PhilinCon/Ruhr-University,Bochum</i>	August 14, 2013 Oct.8,2013	Student/ study of Biology
Prof. Dr. Eberhard Curio <i>PhilinCon/PanayCon Founder Scientific Adviser</i>	Sept.9-19,2013	Project visit
Christoph Jäger <i>PhilinCon/Ruhr-University,Bochum</i>	October 5-8, 2013	visit
Rhea Santillan <i>PhilinCon/PanayCon staff/ WEO</i>	Nov. 29-30,2013	Project visit, conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Faustino Guillermo <i>Forest Ranger/ Wildlife Enforcement Officer</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Joven Dujali <i>Forest Ranger/Wildlife Enforcement Office</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Jose Matinong <i>Forest Ranger/Wildlife Enforcement Officer</i>	Nov. 29-30,2013January 21-22, 2014	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Rudy Domingo <i>Forest Ranger/Wildlife Enforcement Officer</i>	Nov. 29-30,2013January 21-22, 2014	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Armelito Ebon Jr. <i>Forest Ranger/Wildlife Enforcement Officer</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Jose Matinong <i>Forest Ranger/Wildlife Enforcement Officer</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Rudy Domingo <i>Forest Ranger/Wildlife Enforcement Officer</i>	Nov. 29-30,2013January 21-22, 2014	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
Armelito Ebon Jr. <i>Forest Ranger/Wildlife</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon

<i>Enforcement Officer</i>		Yolanda as per also request by PASu Lababit
<i>Freddie3 Fernandez Forest Ranger/Wildlife Enforcement officer</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit
<i>Joeman Mangga Forest Ranger/ Wildlife Enforcement Officer</i>	Nov. 29-30,2013	conduct survey of damages esp. uprooted trees caused by typhoon Yolanda as per also request by PASu Lababit