PHILIPPINE ENDEMIC SPECIES CONSERVATION PROJECT

(PESCP)

Thirteenth Annual Report

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In tight cooperation with

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Department of Environment and Natural Resources (Philippines)
Frankfurt Zoological Society (Germany)
Ruhr-University Bochum (Germany)
GTZ / CIM (Germany)

Environmental devastation and PESCP's struggle to stop it

Front cover clockwise:

Upper left**: Landslide due to deforestation.** © S. Diestel. **–**

PESCP Forest Ranger keeping record of trees felled inside Protected Area of NW Panay Peninsula, Nabas, Aklan, for DENR to file criminal charges against the illegalists (upper panel)**.** © L. Rosenbaum. **–**

Buttressing roots in primary forest to serve water catchment (lower panel)**.** © I. Frank**. –**

Confiscated Rufous Hornbill *Buceros hydrocorax* fledglings, from among 40 other birds intercepted in Caticlan awaiting rehabilitation. PESCP rescue facility at Mag-aba, 2005. © R. Elio. **–**

Dulungan or Writhed-billed Hornbill *Aceros waldeni* male at nest hole, one from among 502 guarded till fledging by PESCP in 2006, thus foestering seed dispersal by this and other fruit-eaters. © T. Laman. **–**

High value timber: Taguili *Shorea polysperma* seedling in PESCP rainforestation nursery, with skin of seed still sticking to first leaves. © E. Curio. **–**

PESCP Forester John Espiritu showing how to culture seedlings. © D. Sternemann. **–**

PESCP livelihood scheme: Pigs to fatten and pig stable. © D. Sternemann. **–**

PESCP livelihood scheme: Distribution of fruit trees for marketing fruits: Rambutan *Nephelium lappaceum* fruits (left). Source: Wikipedia. **–**
Lansones *Lansium domesticum* fruits (right). Source: Wikipedia.

Design by Helga Schulze (Ruhr-Universität Bochum)

The Project has been funded in 2006 by the

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Thirteenth Report 2007

An Update and Thorough Revision of the ‚Twelfth Report' 2006

Title of Project and Time Period:

Philippine Endemic Species Conservation Project (PESCP); the time period covered is the year 2006.

The project's work is formalised under the aegis of a Memorandum of Agreement between the DENR and Ruhr-University Bochum, renewed in 2006, and a collecting permit, covering collecting (blood, plants, ectoparasites) and accidentally (e.g. road kills) obtained specimens that represent new species or new distributional records. Links with many environmentally concerned agencies/ institutions are continuing to exist and many others are developing: Asian Institute for Lithurgy and Music, Pres. Dr. F. Feliciano, BII (Birds International Inc., Quezon City), 'GEO protects the Rain Forest' (Hamburg, Germany), Green Forum - Western Visayas (Iloilo, Panay), the GTZ and CIM (German Agency for Technical Assistance, Eschborn; Centre for Internatl. Migration and Development, Frankfurt/M.), the Negros Forest and Ecological Foundation, Inc. (Bacolod, Negros), North of England Zoological Society (Chester, UK), both CENTROP and SUAKCREM at Silliman University (Dumaguete, Negros), the Philippine National Museum (Manila), Radio Station DWWW, President Roberto N. Bacsal, the Philippine Working Group (Manila), and UP Diliman (Dr. P. Ong). Internationally, PESCP is thankfully supported by a number of sponsors (see page of Acknowledgment above).

The most significant link forged with Aklan State University (ASU) since 2003 continued to prosper. Accordingly, joint endeavours in the field of community-based development and conservation of both ASU and PESCP saw their outreach work in Aklan province expanding and solidifying, thanks to a grant from EU/ UNDP; this joint endeavour in reforestation and various agro-forestry and husbandry livelihood measures will go some way toward protection of tropical forests as those of Panay (see Manager's Report). A cornerstone of this cooperation was the continuing funding of the position of an Environment Program Coordinator by ASU with the assistance of the German Government (GTZ/CIM). The men in charge are Prof. R. Felizardo (ASU), and PESCP's acting Manager Thomas Künzel who thereby has been assigned a double role (see Reports 2004 to 2006).

Sad to say, BioCon, an NGO and earlier outgrowth of PESCP, failed all along with its mandate of strengthening PESCP financially since its erection six years ago. Accordingly the founding of a new NGO 'Philippine Association for Conservation and Development, Inc.' (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 energetically promoted by Mr. Leocadio Dioso, one of PhilConserve's BOD members.

PESCP 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. Plaridel Sanchez*, 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 PESCP 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 Agricultural Technologist, who coordinated the patrol and law enforcement activities of PESCP's Forest Rangers, at the same time introducing to this tricky business Madam Maria Ibabao who was serving with great commitment as a project Liaison Officer all along. Similarly both Congressman Hon. Florencio Miraflores (Aklan) and Congressman Hon. Exequiel B. Javier (Antique) have been amenable to the idea of supporting PESCP financially in the year to come. Likewise, our community-based work received high-spirited support from the Barangay Cptn. of Idio (Sebaste), Atty. Mr. Bulos, our law-enforcement topically directed at large-scale illegal.logging in Brgy. San Andres (Sebaste) was crucially assisted by the Barangay Cptn. Mr. Samuel Dionela.

As before, Prof. Dr. E. Schneider, President of the German 'Bird Protection Committee' (Göttingen), as well as M. Sc. T. Pagel (Director of Zoo Cologne), past President of the Breeders' Association AZ, were circumspectly funding our *ex situ* work focused on the rehabilitation and release of wildlife, specially endangered birds.

Editorial

> "These statistics demonstrate the incontrovertible fact that if we are to help the very poor in the country, access to modern contraceptives at affordable prices should form part of our poverty reduction strategy. Refusal by the government to recognize this reality simply means that it is not serious in its poverty reduction goal for the country."[1]

So beautiful the Philippines are, or more precisely, have been, to the eye of the beholder, so ugly is its premier problem, namely poverty. When rightfully decried by President Gloria Macapagal-Arroyo in public "Our enemy is not the Abu Sayaf, our enemy is poverty!", she failed to pinpoint the ultimate cause underlying poverty, namely overpopulation. With a per capita growth rate of 2.36% per year the gap between the country's economic growth of 2.1% is painfully increasing with each eye blink, as observed by former Secretary of Health and current Senate President Pro Tempore J. Flavier. He forcefully criticized the ineffectiveness of the government's family planning program and its glossing over by interested politicians hiding crucial aspects from the public (Philippine Daily Inquirer, 6 Oct 04).

Poverty can be measured in various ways, most conveniently in earned/ spent income. However, as stressed by de Leon (l. c.), modern economics tells us that there are more sensible measures, i.e. the lack of 'access to basic services such as education and health.' Besides environmental degradation as a cause of poverty in the country, is a large family size; poverty incidence, a study found out, increases from a mere 10% among couples with only one kid to a staggering 57.5% among couples with nine kids. With these facts at hand one should think the government would implement an effective family planning program, yet this is a far cry. While the President dished out a total of P 2 billion for the government's war on terrorism and corruption, it failed to

[1] Benjamin D. de Leon, President, Forum for Family Planning and Development, in Philippine Daily Inquirer, 29 Aug 2006.

set aside P 2 billion for environmental protection and development (M. Inciong, Chair of Rizpec Foundation for Sustainable Development, Philippine Daily Inquirer, 31 Aug 06), with family planning potentially falling within both of these agenda. In a municipality in NW Panay, Prov. Aklan, deeply commited to family planning, the budget for distributing contraceptives or paying for highly popular tubal ligation has dropped to zero already for long. In spite of being the premier problem of the country overpopulation is not ranking high on the government's agenda. In contrast, GMA uttered in public that many children mean progress for the country. Given this outworldish, irresponsible view of the country's commander-in-chief there is little hope for a determined family planning campaign. What could be the solution? Help must come from foreign sources. However, their sustainability blows hot and cold, depending often on subtle circumstances. Before the government decides to the better and allocates sufficient budget to this all-important problem NGOs such as the Philippine Association for Conservation and Development (PhilConserve, see PESCP's 12th Report, 2006) must take the lead. Only the slowing down of population growth, or even better, its reversal, will guaranty a decent standard of living and avert civil war.

If it comes to the worst freshwater will be one of the contested commodities. Forest cover of the watershed area of Iloilo City, Panay, is a mere 2% of what it formerly was. Consequently this town is the only one in the country that had to ration water during the dry season. And because of water shortage in general Panay harvests 118,000 tons of rice less (B. I. Harper, Philippine Daily Inquirer, 2006).

Another, perhaps the next greatest concern, is logging of the last forests, both legal and illegal. Following the disastrous killer flash floods in Luzon end of 2004 the President announced, couched in strong words (verbatim quotation in PESCP's 11th Report, 2005), her determination for relentless prosecution of illegal logging, and a total log ban was issued in 14 (some sources say 15) of the country's 16 regions. Logging concessions were revoked, and laudably, the ARMM (Autonomous Region Muslim Mindanao) issued a logging ban in the region's five provinces (The Philippine Star, 19 Mar 06). [This having said, I would like to stress that I am not siding with the ARMM's political agenda.] Elated by these good news I gave the President credit for her apparent determination to get to grips with the country's most pressing environmental problem (PESCP's 11th Report, 2005). My naivité became only too evident when, soon after, logging companies such as Timberland Forest Products Inc. (TFPI) were allowed to go on devastating forest heritage of the Sierra Madre. Logging by TFPI comes under the guise of 'Integrated Forest Management' that entails reforestation. But who controls whether this happens to make good for the loss of the 'mature, overmature and defective trees' (Wilson Ng, owner of TFPI, Philipp. Daily Inquirer, 4 Sep 06)? It is these trees that are key to a near-equilibrium climax (= mature, centuries old) forest that is now <u>legally</u> falling under the chain saws of TFPI. To compound the problem the DENR granted to yet another company, Industries Development Corporation (Casiguran, Northern Aurora Prov.), one of the two provinces hit most by the killer flash floods, logging in that already brittle ecosystem (Philipp. Daily Inquirer, 25 Feb 06). Furthermore, yet another company, Carmen Hills Corporation, is allowed to argue at length to continue its 'Industrial Tree Plantation Lease' activity in a <u>protected area</u> in Baguio District (northern Luzon) (Phil. Daily Inquirer, 25 Feb 06). Hence, in the Sierra Madre alone, legal logging by at least two companies and the potential destruction by a third goes on in naturally grown forest. From this one has to conclude that the political will in the upper echelons of the

society to protect the environment is at best weak if not absent. My enthusiasm, fuelled by the President's programmatic words (see above), has suffered a serious blow.

Similarly, prosecution of the wrong-doers is impeded by lenience and slowness. From 532 cases filed by the regional DENR in Central Luzon since 1995 a mere 55 ended in convictions so far (Phil. Daily Inquirer, May 06: '14 draw prison terms for illegal logging.'). A similar experience has been made in NW Panay by our project. The premier problem of filing more cases against illegalists is that of people standing as witness in court. Still, after 1.5 years of PESCP' uncovering massive illegal logging in the Nabas portion of the PA of the NW Panay Peninsula and pinpointing of the eight illegalists involved, the authorities are still 'collating the documents' for the court trial. Another and perhaps more serious obstacle of initiating prosecution is deep-rooted fear of being slain as a consequence of standing as witness; usually it cannot be overcome by a reward of 20% of the proceeds of confiscated products as stipulated by the Revised Forestry Code. – The inefficiency of the prosecution of crimes against the environment is nowhere better demonstrated than by the case of former DENR forester Raul Zapato. In self-defence he had killed a corrupt mayor and had been sentenced to lifetime imprisonment. After 13 years (!) behind bars he was finally acquitted as innocent [thanks to the intervention, among others, of Elisea Gozun who incidentally served too short a term as SECY of the DENR] (PESCP's 12th Report, 2006). Yet to the disappointment of all believing in justice, the compensation promised to him at worth of P200,000/ year of imprisonment did not come true. For reasons unknown, only Sen. Heherson Alvarez gave him (ex officio?) a mere P100,000 for two of the 13 years. This is scarcely pocket money for a man who has survived an ordeal of erroneous (biased?), long-term incarceration.

This brings me up to my last point, namely the increasing threat against the whistleblowers and conservationists. It is exerted by the mafia of illegalists devastating our environment. The number of masterminded murders has increased worldwide, indicative of the dwindling of natural resources everywhere. Recent ugly acts of this sort occurred recently in Brazil, French Guiana, Tansania, Indonesia and the Philippines (Curio unpublished). In Cebu, Elpidio de la Victoria, Director of the Cebu City Fisheries Commission, was assassinated in view of his wife and children on 12 Apr 06. He supported local fishermen against illegal practices of the commercial fishing industry; he also directed the Visayan Sea Squadron, a citizen-initiated law enforcement project (immediate press release, posted materials: www.pielc.org). De la Victoria's like-minded companion, Antonio Oposa, law professor and Harvard-educated lawyer, is threatened since then, with a bounty of P1,000,000, as was his killed friend before. [To be sure, the ordinary bounty paid by masterminds of murder is in the order of P10,000.] An international protest from 125 law professors and deans from more than a dozen countries was sent to President GMA, expressing their 'horrified dismay' at the violence. The letter emphatically calls for more safety of these 'citizen conservationists'.

When I had indicated in an interview with the world's premier science journal (Wegner & Schiermeier 2002, Nature 416: 669) that conservationists in the Philippines are at risk, I received letters of protest from Philippine friends working for conservation in the country. Similarly, for reasons too obvious an ill-argued protest reached Nature (2002, 418: 125), being based on the misplaced argument that rebels would not be a 'barrier to conservation', which is by and large true. In the interview

mentioned local illegalists, not rebels, were mentioned as threats. The case of Raul Zapato is a living exemplar of yet another kind of risk (see above). And my warning is echoed by recent similar events. A DENR official enforcing the law in Luzon received threats only recently, likely from an illegal logging syndicate (Phil. Daily Inquirer, 24 Jul 06). Another environmentalist was slain for following his credo in Calamba City in May 06 (Phil. Daily Inquirer, 13 Jul 06). It is heartening to see that exactly those among my Philippine friends who had protested my being a whistleblower had alerted me, with rightful dismay, to the murder of de la Victoria and the ongoing threat to his friend A. Oposa (see above). Probably they would no longer debate my opinion about conservation work in the Philippines being risky. This is underscored by people of lower social status than the assassinated mentioned being left in the cold by the very local politician who ought to be responsible for their well-being and integrity (see below Manager's Report, Letter to a Mayor). The increasing threat to conservationists falls in line with another dirty business, the masterminded murders of Philippine journalists; sadly, the country is keeping the world record of this ugly outgrowth of societal violence. The government should have the determination and courage to appropriate a budget for protecting somebody standing as a potential 'crown witness' in court, and give this witness a new identity and a new job in safe environs. This is, in my view, the only solution to weaken the tradition of cowardly, masterminded murder.

Executive Summary

Conservation, Education, Livelihoods, Rehabilitation

1. PESCP being an integrated conservation and development project, continuously funded by the Frankfurt Zoological Society (FZS), went ahead with long strides as in 2005. The main goal during the first years of PESCP's work on Panay has been to make the lowland-rainforest of the NW-Panay Peninsula (NWPP) – one of the last of this forest type in the Philippines – a Protected Area (PA) under the NIPAS Act. Setting up of a Protected Area Management Board (PAMB) for the PA consolidated conservation though a task force erected to give it forceful backing remained largely non-operational for want of funds that had been pledged by the five mayors of the NWPP. PESCP started to shift its activities appropriately and within a suitable time frame to the Central Panay Mountain Range (CPMR), working in the spirit of our new overall vision: **The protection of the forested areas of the CPMR**. The to-be-PA at stake covers ca **40,000 ha** good forest, the home of a number of **critically endangered, endemic wildlife such as the Dulungan Hornbill (*Aceros waldeni*), the Visayan Spotted Deer (*Cervus alfredi*), the Mabitang (*Varanus mabitang*), the Negros Bleeding-heart (*Gallicolumba keayi*),** and others. PESCP has been active in all four provinces of the CPMR already over the last five years focusing successfully on the protection of forests and the virtually last viable population of the critically endangered Dulungan living here.

2. PESCP's core staff has changed little, and thanks to a joint effort of Aklan State University, FZS and GTZ/ CIM the Manager's salary could be secured for another two years with the project's Director giving constant support at many levels of the project's agenda. In tight cooperation with the 25-Peso Multipurpose Cooperative of ASU an EU/ UNDP funded conservation and development project (CoFoPA) ended successfully in Dec 06, as reflected in the reports of various fulltime staff below.

3. The main pillars of PESCP's work have remained as before:

   A. Habitat Protection, Environmental Law Enforcement and Rainforestation
   B. In situ protection of Critically Endangered/ Endangered Wildlife
   C. Livelihood-based sustainable Community Development
   D. Conservation and Development Education
   E. Nationalization/ Sustainabilization of PESCP's Activities and Programmes
   F. Rehabilitation and Release of captive Wildlife

   The activities and outcomes guided by this agenda can be detailed as follows:

4. The remaining pristine forest habitat in the north western portion of the CPMR was protected by consistent law enforcement and partially restored by rainforestation. Furthermore, the Barangay Captain of Idio, Municipality of Sebaste, declared his area of jurisdiction as a PA thanks to the authority given to LGUs over the protection of their environment. Lobbying for the CPMR to become a PA went on at various levels of society. Large amounts of illegally cut timber and many illegally used chain saws were confiscated in cooperation with the Philippine National Police (PNP). The commitment of the PNP to its duties leaves much room for improvement (see Manager's Report). Similarly the risk involved to whistleblowers denouncing illegal activities by their barangay fellow members was made public (see also Editorial above). The underlying neglect of a local politician and his mandate to care for the security of his constituents was highlighted by a letter of complaint to that very politician (Manager's Report). - PESCP extended its various conservation measures to all four provinces of Panay though shortage of manpower prevents the badly needed patrolling of the entire area of the CPMR. - Lobbying for the Forest Rangers (FRs) being taken over by the DENR is ongoing but is severely curtailed by the government's cutback on funds for this authority (and others). – Thanks to the funding by EU/ UNDP the CoFoPa Project operating in various places of the CPMR could considerably extend its rainforestation with native timber and with fruit trees (see below 7.).

5. The protection of critically endangered wildlife, especially the Dulungan (Writhed-billed) Hornbill, made again a big leap forward in that the number of protected nest holes rocketed to the unprecedented high of 502 successfully fledged broods, thanks to the funding from FZS, GEO, NEZS/ Niehoff Vaihinger and – earlier – NGS cum Seaworld and Busch Gardens. In both Antique (Maadios, Pandan) and Aklan (Yawan, Ibajay) a good number of previous hornbill nest poachers/ hunters have been won over to become engaged in hornbill nest guarding. There is a need to expand the nest protection scheme into the southern reaches of the CPMR to embrace the entire population of the Dulungan, the flagship species of PESCP. – There have been many training and workshop attendances by PESCP staff for having a more erudite view on environmental management, law enforcement and ex situ maintenance of wildlife and the legal bases for it all.

6. This success was favourably echoed by the media as was the large-scale destruction of airguns surrendered to the Project Management in exchange for rice. The associated patrolling in the forests of the CPMR benefited in still unmeasured ways other endangered wildlife such as the Tarictic Hornbill and the critically endangered Spotted Deer. On Boracay Island, a study on the stress imposed by human

construction activities on the flying foxes critically endangered ones included saw its fruition and advocacy toward the protection of their roosts continued. Threat from a hotel development project spearheaded by Shangri-la is looming, and an ECC (Environmental Compliance Certificate) has been issued all too hastily.

7. The protection scheme (5.) was flanked by an extensive education campaign and livelihood support to the benefit of the communities involved. Provided to four communities of Antique Province, the latter support included native chicken and pig breeding, pig fattening, agroforestry, sloping agriculture, vegetable production and composting organic remains, and nursery-based native timber tree and fruit tree farming. Specifically, in executing rainforestation, 60,375 seedlings of native timber trees and 57,519 of fruit trees were produced of which 12,075 and 717, respectively, were planted out in four communities in Antique and Aklan provinces. In doing so PESCP is enabling uplanders to become less and less dependent on forest as a source of timber and other products. The large-scale involvement of the communities concerned is thought to promote sustainabilization and nationalization of the project's conservation agenda. To render PESCP capable of fulfilling its multiple tasks its patron, the NGO PhilConserve, further consolidated its standing and public advocacy. A detailed work plan for 2007 along with its expected outcomes reveals the grown and multi-faceted agenda of PESCP.

8. Rehabilitation and release of captive wildlife, foremost the endangered Tarictic Hornbills, made further progress and is looking forward to technical improvement, particularly in regard of the telemetry employed. Furthermore, the maintenance of a whole variety of wildlife species as supervised by the project's vet was improved (diet formulation, cage design, health supervision, pre-release health check). Typhoon caused damage was quickly though not completely repaired. The rescue facility at Mag-aba received increased public attention from high schools and universities of Panay. Based on accumulating experience the suitability of wildlife admitted to PESCP's rescue facilities is not uniform. Accordingly a decision tree for a rational assignment of individuals to those slated for release, and others unsuitable for release because of injuries, for example, was designed and is guiding decision making of staff in this respect.

Conservation Research

9. As usual there has been faunistic and taxonomic progress with the project's herpetological work that is highlighted by the description of a new species of geckonid lizard (*Gekko ernstkelleri*), a Panay endemite, and a number of new distributional records of frogs and snakes. An account of a noteworthy regrowth of an injured tail into a forktail of a Fin-tailed Lizard (*Hydrosaurus pustulatus*) is given; the lizard's appearance is highlighting the still uncertain taxonomic status of this species on Panay and elsewhere.

10. In many places alien species (invasors) that became successfully established in the recipient fauna have become next to habitat destruction the most important cause for the extinction of native species. The Marine Toad (*Bufo marinus*), an almost cosmopolitan invasor from the American tropics, has found its way to many Philippine islands while its potential threat to the above-ground soil fauna has remained unstudied. As expected from a generalist predator, the stomachs of a good

number of individuals in both a coastal and an inland, higher elevation area contained an impressive array of arthropod groups including whip-scorpions, whip-spiders, scorpions, daddy- long-legs (harvestmen), millipedes, many insect orders, a frog, and juvenile blind snakes, many of which had not been found by us in the those areas before. The potential threat suggested by these findings needs urgently further study with an outreach to other islands of the country

11. Hornbill research in terms of the breeding biology of both Visayan endemites, i.e. the Dulungan and the Tarictic Hornbill, was reviewed, with an emphasis on the food in the breeding season and, for the first time, the degree of competition for food with seven syntopic Panay fruit bats. Competition was found to be low as measured by Soerensen's similarity index. The latter finding indicates that fruits are adapted either to dispersal by birds or by fruit bats.

Basic Research

12. A predacious bug (*Acanthaspis bellulus*, Reduviidae) was found to be density-regulated by its principle ant prey. Within two years the phenotype of the bug had changed from a warning-colouration to a concealing colouration, a change that needs further study in terms of the nature of the phenotypes involved and the underlying ecological factors. - Follow-up experiments established that the larvae orient when displaced from their roost holes in a tree toward home while controls from another locale proved disoriented. The factors underlying this home orientation remain to be studied. Occasionally larvae kill others of their kind to complement their concealing backpack rather than to eat them.

13. Ornithological research revealed a number of new distributional records, details of the first breeding of the Colasisi (Philippine Hanging Parrot, *Loriculus philippensis*) and several passerine species with known breeding records on other islands, including breeding during the rainy season (*Pitta*). Further observations pertained to a longevity record in the Red Junglefowl, the threat to birds emanating from spider webs, and the selection of a place for over-night roosting as an antipredator strategy. Systematic observations at mist nets revealed a behavioural trick of forest-dwellers that was unknown before, to avoid injury/ collision with obstacles during straight line flight through foliage.

14. Many prey animals and plants are protected against their consumers by spines that are oftentimes contrastingly coloured (warning colouration). Accordingly spines artificially inserted into popular fruits conferred protection onto the fruits when offered to captive hornbills in cafeteria experiments. This protection derived from both a primary and secondary (line of) defence in that fruits with warningly coloured spines were already rejected upon visual inspection as compared to non-contrasting spines and, additionally, upon mandibulating ('handling') them in the bill. The latter effect is surprising in suggesting that the birds 'believe' their eyes more than their pain- or mechanoreceptors in the lining of the bill. These protective effects depended on both the colour contrast between the fruit background and the spines in addition to the sign of the contrast. These findings bear on the problem whether protective spines can evolve without being poisonous.

1. Conservation, Education, Livelihoods, Rehabilitation

1.1 Manager's Report

By T. Kuenzel

1.1.1 Project Outline

PESCP, which started its work in the Western Visayas in 1995 as a small project focusing on the conservation of endangered wildlife species, has become a medium-sized organisation well known in the region and being now one of the main players in northern Panay in the fields of community-based habitat protection / biodiversity conservation and sustainable development, over the years and with the continuous support of the Frankfurt Zoological Society (FZS).

The main goal during the first years of PESCP's work on Panay has been to make the lowland rainforest of the NW Panay Peninsula (NWPP) – one of the last of this forest type in the Philippines – a Protected Area (PA) under the NIPAS Act. A first major step towards this goal had been reached when the President of the Philippines signed a document declaring that lowland forest a PA in April, 2002. As that PA (12,000 ha with ca. 5,000 ha good forest) will step-by-step enjoy the appreciation, care taking and conservation effort of various entities: the Department of Environment and Natural Resources (DENR), the new Protected Area Management Board (PAMB), which had its first meeting in Aug 2004, the five municipalities surrounding the PA, and of the task force "Anak-Talon" created already for the special protection of the forest in the PA but not yet operational; the PESCP, in a manner tailored to its multi-faceted agenda, has been shifting its main activities to the Central Panay Mountain Range (CPMR) working all along our new overall vision **The protection of the forested areas of the CPMR.** The to-be PA at stake covers ca. **40,000 ha** good forest, the home of a number of **critically endangered, endemic wildlife as the Dulungan Hornbill (*Aceros waldeni*), the Visayan Spotted Deer (*Cervus alfredi*), the Panay Cloudrat (*Crateromys heaneyi*), the Mabitang (*Varanus mabitang*), the Negros Bleeding-heart (*Gallicolumba keayi*,** see picture**),** and others. PESCP has already been active in all four provinces of the CPMR over the last four years focusing very successfully on the protection of forests and the probably last viable population of the critically endangered Dulungan Hornbill.

PESCP's work in 2007 will be executed by 31 fulltime local staff plus another part-time paid group of around 40–60 local co-workers, and 132 Dulungan nest guards (former hunters turned into conservationists) all of whom are supported by a German Manager being stationed permanently in the Philippines and a German Project Director who spends at least 4 months per year in the project area. Since Jan 2004 PESCP's Manager is also holding the position of the Environment Programme Coordinator in Aklan State University (ASU) where he is being sponsored by GTZ/CIM, the German Technical Development Agency (**App. 1**). In tight cooperation with the 25-Peso Multipurpose Cooperative of ASU and on behalf of EU/UNDP, the PESCP executed a reforestation project on Panay with a total value of 46,000 EUR from

March 2005 to Sep 2006, which was possible only because of the counterpart funding from FZS.

PESCP's activities in the Philippines are based on MOAs and MOUs forged with the DENR, a number of LGUs, NGOs, Police Stations, Military Units and ASU. The MOA with the DENR is the most important one because it stipulates that the PESCP is conducting its activities as partner of and on behalf of the DENR, the most powerful governmental organisation being mandated with the conservation and sustainable use of the natural resources of the country.

All programmes and activities of PESCP are depending on funds being raised from national and international donor organisations among which the FZS is by far the biggest sponsor since the start of the

project 11 years ago. In the following the main pillars of PESCP's activities are presented in decreasing order of priority:

G. Habitat Protection, Environmental Law Enforcement and Rainforestation
H. In situ protection of Critically Endangered/Endangered Wildlife
I. Livelihood-based sustainable Community Development
J. Conservation and Development Education
K. Nationalization / Sustainabilization of PESCP's Activities and Programmes
L. Rehabilitation and Release of Captive Wildlife

1.1.2. Overall Goal of the Project

The good forests of the NWPP (ca. 5,000 ha) and of the CPMR (ca 40,000 ha) and its wildlife are sustainably protected/conserved by, and to the advantage of the people living in and around the areas in question, and that protection/conservation does not rely on foreign support.

1.1.3. Successes and Evaluation of Past Activity

1.1.3.1 Habitat Protection, Law Enforcement and Rainforestation

<u>Successfully lobbying to turn still existing good forests into Protected Areas:</u>
Thanks to the many years of effort of PESCP/FZS in cooperation with the NW Panay Biodiversity Management Council (NPBMC), and others, the lowland rainforest of the NWPP (one of the last of this forest type in the Philippines, and therefore of immense importance for the maintenance of the biodiversity of the country) was declared a PA by the President of the Philippines in April 2002. PESCP's effort towards declaration of the good forests of the CPMR has been already partly successful – in Oct 2006 the Brgy Cptn of Idio stated his willingness to declare all Idio (and Sebaste) bound forests with the Dulungan as PA according to the authority given to LGUs over the protection of their environment.

Forest Ranger-based habitat protection and law enforcement:

PESCP's habitat protection, and law enforcement programmes have been very successful and are acknowledged/ appreciated by the people, which quite often let us and others know that PESCP is the first and only organization here on Panay, which consequently implements its planned and announced law enforcement / forest protection activities resulting in a strong reduction of illegal logging activities in the forests where before the illegal loggers did not have to fear any law enforcing effort. Some of these successes will be outlined briefly as follows:

Timber confiscated by PESCP's FRs led by the Manager inside PA of Nabas Municipality

- The highly organized efforts of groups of illegal loggers to generate millions of Peso during 2002, and the first half of 2003 (pre-election time), by chain sawing down a huge number of mature grown native timber trees inside the PA of the NWPP has been stopped through the consequent assignment of PESCP's Forest Rangers (FR) in tight cooperation with the Philippine Army by setting up a FR-forest protection camp inside the PA being manned day and night for ca 6 months.

- Due to the daily patrolling / monitoring efforts of PESCP's FRs in tight partnership with the Philippine Police Forces (especially to be mentioned the PNP of Pandan) a „climate" has been established in the forests which is feared by the illegalists; chainsaws and illegally cut lumber have been confiscated, whenever observed; some illegalists have been imprisoned (for examples see **App. 2**). Due to the neglect of duty enforcement of the law including the protection of informants has been less than satisfactory (see telling letter to a mayor of Antique province at the end of this Manager's Report). Sadly, there is reason for complaint about certain PNP officers in the Municipalities of Buruanga and Nabas, Aklan province (**App. 3**).

- The NPBMC supported by PESCP has plans to set up the task force Anak-Talon built by Police, Army, DENR, LGUs, and NGOs, which will be responsible for the protection of the PA in the NWPP and should then act independently from PESCP's protection effort. Unfortunately, the FRs of PESCP are the only active part of that task force so far. This is due to a lack of funding for that task force, which has been promised for years by the mayors but is yet to be realised.

- Nine out of the 13 FRs of the PESCP have been deputized by the DENR in 2004 as Deputy Natural Resource officers (DENRO) giving them the same authority as the DENR-FRs have with regard to patrolling and apprehensions. That deputation ended in mid 2005 and has not been renewed because of a general lifting of such deputations through the

Secretary of the DENR. To compensate for the missing deputation as DENROs we requested from the DENR to accept our FRs as WEOs (Wildlife Law Enforcement Officers) giving them the authority over wildlife and forest. That deputation as WEOs will be completed before the end of 2006.

- Since 2001, PESCP has successfully extended its various measures to ensure habitat protection from the NWPP into the forests of all four provinces of the CPMR.

- Since September 2006 the Leader/Coordinator of PESCP's Forest Rangers is Madam Maria Ibabao, who has been mentioned as an example of how women can complete tasks, which were formerly preserved for men, very successfully/ and even better during a gender equity workshop in Antique. It is due to Maria Ibabao's dedicated effort that during 2006 nearly all unregistered chainsaws in and around the PA of the NWPP have been apprehended, confiscated and/or registered according to chain saw law.

Unfortunately, our effort to have the FRs employed by the DENR has not been successful so far, and regarding the DENR's reactions to our numerous approaches about the employment of the FRs we do not think that this aim can be reached in the near future, due to lack of funding.

Community-based habitat protection:
In the many upland communities where PESCP has been active in helping the people to set up livelihood alternatives we were able to convince our counterparts that consequent community-based conservation or restoration of a healthy environment is of paramount importance for any long-term improvement of their and the coming generations' living conditions. We also helped them to elaborate appropriate conservation plans. In continuous follow-up activities PESCP is now monitoring the persistent implementation of these community conservation plans. The positive results show us that the combination of livelihood alternatives and community-based environmental conservation plans are a very useful tool in making conservation sustainable. As a measure to enable the people in our counterpart communities to refrain from illegal logging, the PESCP distributed 220 seedlings of Giant Bamboo which is thought to replace lumber of naturally grown trees when building houses and other constructions.

Rainforestation:
PESCP's endeavours to raise funds for the extension of our rainforestation programme has been extremely successful. As the only organisation in the whole Western Visayas, PESCP in partnership with the 25-Peso

Multipurpose Cooperative of ASU, has been mandated with the execution of a rainforestation programme entitled "Community-based Maintenance and Restoration of Forests in Central Panay Mountain Range and Protected Area of NW Panay Peninsula (CoFoPa)" under the aegis and funding of the EU/UNDP "Small Grants Programme for Operations to Promote Tropical Forests". In March 2005 the EU/UNDP granted ca 64,000 US$ to enable the PESCP to execute/implement the activities proposed for CoFoPa, which ended formally in Sep 2006 after 19 months (see the Final Reports on CoFoPa by Forester J. Espiritu and S. Galuego, Upland Agriculturist H. Dungganon, and Wildlife Educator A. Alabado, chaps. 1.2.1 – 1.2.3). Yet an extension was granted until mid Dec 2006. A pre-condition to receive that funding from EU/UNDP was a certain amount of counterpart funding, which PESCP was able to accomplish through the annual funding from FZS. Based on funding from both FZS and

EU/UNDP seven nurseries for native forest trees have been installed and will be maintained in the provinces of Antique and Aklan also after the UNDP-funding ends.

1.1.3.2 Protection of Endangered/ Critically Endangered Wildlife

PESCP's protection of endangered/ critically endangered wildlife has been especially successful with regard to programmes focusing on two "flagship" species – the critically endangered Dulungan Hornbill (*Aceros waldeni)* living in the CPMR, and the endangered Golden-crowned Flying Fox (*Acerodon jubatus*) which has some of its last roosts on Boracay Island. Protectionn of the Dulungan and other co-occurring wildlife:
PESCP's community-based protection scheme for the Dulungan reduced nest hole poaching per breeding season from a former ca 50+ % to ca 5 % during each of the five last breeding seasons. Before PESCP got active in the CPMR the Dulungan world population - which no doubt is one of the most threatened hornbill species worldwide - was believed, according to published sources, to stand at maximally 50 to 100 breeding pairs. After nearly 6 years of intervention through PESCP (with funding mainly from FZS, GEO, NEZS/ Niehoff Vaihinger and NGS) we had the pleasure to protect, until successful fledging, a total of 502 Dulungan nest holes in 2006 (see the Final Report for 2006 in chap. 1.3.1 and satellite report chap. 1.3.2). This progress was also well received in the media (Fig. 1, next page).

PESCP's protection scheme focusing on the Dulungan living in the CPMR at the same time serves also the protection of other wildlife in the area as, e.g., the critically endangered Visayan Spotted Deer (*Cervus alfredi*), and the endangered Tarictic Hornbill (*Penelopides panini*). In 2006 our programme for the protection of the Dulungan population in the CPMR has been evaluated by the NEZS.

Protection of Flying Foxes:
In 2003 PESCP was able to receive a grant from Haribon (largest Philippine conservation-concerned NGO) to realize a programme for the protection and conservation research focusing on the endangered Golden-crowned Flying Fox on Boracay. The most important results of the project are: (1) a substantial reduction of the hunting pressure on the Golden-crowned Flying Fox, and on two other flying fox species using the same roosts as the Golden-crowned, (2) the population numbers of these flying foxes are known (2, 500 – 3,500 in 2005), (3) the behaviour of the flying foxes is understood better - especially their reaction to stress induced by human activities near the roost, (4) further threats, especially the impact hunting exerts on the flying foxes during their nocturnal foraging on Panay 'mainland' are understood better, (5) hunting of flying foxes on Boracay went down nearly to zero, which is mainly due to the fact that the forest patches with the roosts are now effectively protected through Shangri-la Hotel, the new owner of that land.

Anti-Airgun Programme:
PESCP's Airgun-for-Rice programme as an intervention against hunting has been very successful - resulting in the collection of 59 airguns, which were destroyed during a biodiversity conservation event under the eyes of the public and the media in Nov 06. Together with these airguns also seven home-made shotguns apprehended by Forest Rangers of PESCP were destroyed in coordination with the Police of Pandan (Fig. 2 over next page, see also App. 2).

The Philippine STAR **BUSINESS**

BUSINESS
Agriculture/Environment

B-4 Editor: ROMAN F. FLORESCA Sunday, November 5, 2006

Hornbill calls heard again in Panay

By JUN AGUIRRE

PANDAN, Antique – The distinctive calls of writhed-billed hornbills are coming back into the deep forests of the Madyaas mountain ranges in Panay.

Colorful, playful and noisy, hornbills are among the most conspicuous local birds and were prominent in Filipino folklore.

They once inhabited most large Philippine islands during the Ice Age, with each island having uniquely colored hornbills each believed to be distinct species.

Today, the writhed-billed hornbill (*Aceros waldeni*) in Panay is virtually extinct.

The writhed-bill hornbill is listed by the International Union for the Conservation of Nature and Natural Resources as the world's second-most threatened hornbill species. Others – like the Visayan tarictic and the Sulu hornbills – are critically endangered in most of the areas where they survive.

There are encouraging indications that hornbills forage once again high in the canopy of the deep Madyaas forests where the boundary of the four Panay provinces of Aklan, Antique, Capiz and Iloilo intersect.

In the Madyaas, hornbills hunt in small family flocks, noisily calling to each other as they spot food or potential predators.

"The forest of the Central Panay Mountain Range is the last refuge of the writhed-billed hornbill known to locals as *dulungan*," says Thomas Kuenzel, a German who manages the Philippine Endangered Species and Conservation Project (PESCP).

"And there it has survived with a substantial breeding population," he told *InterNews&Features*. "Whether that population size is viable is another question."

"From 2002 until now, there has been a steady increase in the number of nest holes occupied, from 31 to 502 nest holes in 2006," Kuenzel said.

"The enormous increase can be credited to the effective nest protection scheme. We believe that there is a 44-percent increase in the number of nest holes this year compared from what we started with in 2002."

Former poachers and hunters have been signed up as "owners" of 132 nest holes that they are sworn to protect. The network also includes six wildlife educators, 17 community conservationists and 14 barangay tanods serving as the community police.

"This network of conservation workers is supported by livelihoods planned and implemented together with the communities living in and around the forest inhabited by the hornbills," Kuenzel said.

Hornbills are so-called because the bills of these birds are enormous and usually brightly colored. The top of the bill is a hollow structure called a casque that serves as a resonating chamber for the bird's calls.

Hornbills eat a wide range of foods – including mice and nestling birds – but depend on wild figs in old-growth lowland rain forest.

They live for as long as 20 years and, like most large birds, reproduce very slowly and take great care raising their young.

When the female is ready to lay eggs, the male brings mud that the pair fashions into a solid wall covering most of the opening into their tree-hole nest. The female stays inside the tree-hole to incubate the eggs and nestlings until the young are ready to fly, entirely dependent on her mate to bring food for herself and their brood.

Because they reproduce slowly, writhed-billed hornbills are generally unable to survive heavy hunting. Logging exerts its pressure, denuding lowland rain forest of the trees that provide nest holes.

In 2002, it was estimated that half of the writhed-billed hornbill population in Panay was lost to poaching.

That was six years after Eberhard Curio, a retired professor at Ruhr University in Bochum, Germany, founded the PESCP together with the Department of Environment and Natural Resources.

Starting with a small presence here, the group encouraged upland barangays to protect the writhed-bill hornbill. The word has spread from just five towns to 35 barangays in the 12 towns of all four Panay provinces that border each other in the Madyaas.

With such encouraging developments, Kuenzel is confident that the Madyaas forests will continue to echo with the calls of the hornbills. *InterNews&Features*

Fig. 1. Dulungan nest protection scheme as reported upon in the media. – Picture by Philippine Star after poster of W. Oliver

AKLAN 11

www.panaynews.com.ph Monday, November 27, 2006

52 air guns used in hunting destroyed

By Michael Resterio

KALIBO, Aklan - Some 52 air guns used for hunting wildlife in the hinterlands and or used for game hunting were recently destroyed in Nabas, Aklan.

German conservationist Thoas Kuenzel, manager of the Philippine Endangered Species and Conservation Project (PESCP) based in Pandan, Antique, said the air guns were recovered following their implementation of the "sack of rice for air gun" program.

"We distributed rice in exchange for air guns among the hunters in barangays of Pandan and neighboring communities," Kuenzel said.

Air guns are being used by local residents to hunt for food in the hinterlands of the Central Panay Mountain Range that straddles the provinces of Aklan, Iloilo, Antique and Capiz./PN

AIR GUNS are being used by local residents to hunt for food in the hinterlands of the Central Panay Mountain Range that straddles the provinces of Aklan, Iloilo, Antique and Capiz.

Fig. 2. Destruction of air guns surrendered to PESCP as reflected in the media

1.1.3.3 Livelihood-based sustainable Community Development

Over the years PESCP's livelihood-based, sustained community development programmes have been executed very successfully covering communities in all four provinces of Panay.

FZS/NGS/GEO co-financed Dulungan protection related livelihoods:
Within the scope of our Dulungan protection scheme during the last 4 years the implementation of livelihood alternatives in the communities living in and around the forest inhabited by the Dulungan has been an indispensable and successful tool as a flanking measure enabling the people in the upland communities to refrain from illegal and unsustainable use of the forest and its wildlife – and so to refrain from poaching the Dulungan broods and/or supporting and controlling actively the proper execution of our Dulungan protection scheme.

FZS/UNDP co-financed livelihoods:
Due to the co-funding from FZS and EU/UNDP, a full-fledged livelihood programme in five counterpart communities in the provinces of Aklan and Antique has been executed from Mar 05 to Sep 06 (see the summary reports in chap. 1.2.1 – 1.2.4). These five communities have been chosen with regard to their location in or near forested land and to the potential positive effect the livelihood interventions will have with regard to the protection of the forest and its wildlife as already explained above for our Dulungan protection scheme – empowerment of the people in our counterpart communities to refrain from illegal and unsustainable use of the forest and its wildlife.

These FZS and EU/UNDP funded livelihood programmes include native chicken and pig breeding and pig fattening, agroforestry, sloping agriculture, nursery-based native timber tree and fruit tree farming, vegetable production, and production of compost**.**

All these livelihood interventions serve to effectively help PESCP to make its habitat and wildlife protection activities sustainable and empower the uplanders to become less and less dependent on using the forest.

1.1.3.4 Conservation and Development Education

Conservation and development education activities/campaigns are a successful, integrated part of all our community-based livelihood programmes in the uplands of all four provinces of Panay. PESCP is regularly invited by schools to give students lectures about biodiversity conservation and precautionary economic development. Student groups from ASU and similar bodies visit PESCP's office and our reha facilities regularly to learn about wildlife and its conservation - which they are not offered by the schools. Small groups of Philippine students and their teachers are regularly invited to stay in our research station for a couple of days to get a first impression of and introduction to the rainforest of the Philippines.

1.1.3.5 Nationalization / Sustainabilization of PESCP's Activities and Programmes

PESCP's linkage with Aklan State University (ASU):
In 2003 PESCP has been able to win over ASU, located at the western slopes of the CPMR, as a strong local partner for PESCP's activities / programmes, and the Manager of PESCP, Mr. Thomas Kuenzel, became also the Environment Programme Coordinator of ASU. Within the scope of that partnership Mr. Kuenzel has been accepted by GTZ/CIM for being supported by GTZ/CIM's programme of Integrated Experts making available a salary for this position for 2004; since 2005 that salary is co-financed by GTZ/CIM and FZS, fundings which are already granted for another two years until the end of 2008. For the Agreement between ASU and the Manager of PESCP- serving as the Environment Programme

Coordinator of ASU - on Results for 2007 Programme see below section 5. By successfully pursuing the partnership between PESCP, ASU and the DENR, we have been able to make a significant step towards the nationalization / sustainabilization of PESCP's activities and programmes.

PESCP and the Philippine Association for Conservation and Development, Inc. (PhilConserve):

In March 2005 yet another step towards nationalization of PESCP's activities and programmes has been successfully executed by installing a Philippine NGO named PhilConserve under whose umbrella PESCP is now operating. We were able to win Mr. Leocadio 'Lindy' Dioso (a Filipino retired after 30 years working with UN) as one of the Directors of PhilConserve who now makes a thorough effort for the fundraising among wealthy Filipinos living in the US. Through PhilConserve, PESCP submitted a conservation and development proposal to the World Bank, which already passed the screening committee - convened by the DENR - successfully and therefore stands a good chance to be approved by the World Bank. In case that the proposal pulls through we assume that we could start with the preparatory phase for this project in 2008 at the earliest - with ASU and the DENR as our main counterparts.

Communities as PESCP's vehicle to sustainability:

All of our conservation and livelihood activities, executed together with our local counterpart communities in the forested uplands of Panay, have to be regarded as another very important move towards nationalization and sustainabilization of PESCP's activities / programmes– possibly the most important one. It is here that we forge the most direct link to the people who are the owners of the environment we are concerned about and who are empowered by and by to accept and execute the idea of conserving nature to the advantage of the coming generations within the scope of our interventions.

1.1.3.6 Rehabilitation and Release of Captive Wildlife

PESCP maintains three reha facilities, two in the lowland areas of Pandan and Libertad and another at PESCP's research station in 450 m a.s.l. in the forest of the PA of the NWPP which is used as the only release site for rehabilitated Tarictic Hornbills. Since 2002 all of the released Tarictics are part of our telemetry programme, which is partly sponsored by the Brehm Fund for International Bird Conservation and will also include the Dulungans ready to be released from the station's reha facility in 2007. A Philippine researcher focusing on the telemetry project has been and still is funded mainly by Prof. Curio's 'Stiftung fuer Vogelforschung.und Artenschutz' (Bird Research and Conservation Foundation). Many other wildlife species have been released from the coastal reha facility in Mag-aba (see report chap.1.3.3).

Rehabilitation and release of wildlife surrendered to PESCP from private households or confiscated through the Police or the DENR is successfully proceeding - overseen by PESCP's veterinary consultant, Dr. E. Sanchez, who is supervising four caretakers.

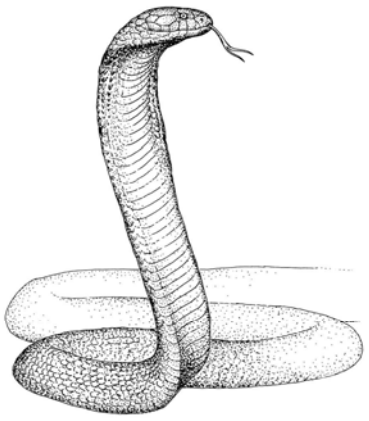
All release activities are executed according to DENR regulations and are often witnessed by DENR staff.

1.1.3.7 Conservation Research

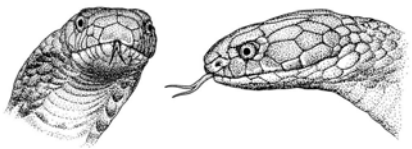
Conservation research activities have been mainly executed in the forest around PESCP's research station, but also on Boracay.

PESCP's records for Panay of species new to science or new distributional records:
Only the two most spectacular new records will be mentioned here; for more detailed information see previous annual reports, and for further species records see chap. 1.4.1:

- The King Cobra (*Ophiophagus hannah*, picture courtesy H. Schulze), one of the most dangerous snakes worldwide – a new record for Panay (reported upon already in PESCP's earlier annual reports).
- The Mabitang (*Varanus mabitang*), a vegetarian monitor lizard reaching 2 meters in length – described new to science (reported upon already in PESCP's earlier annual reports).



Conservation Research at PESCP's Research Station:
The most important project in 2004 to 2006 executed around the research station is entitled "Foraging, diet and reproduction upon release of Tarictic Hornbills" for which a major budget line was received from Haribon, and the Brehm Fund, mentioned already, in 2004.



The project is making use of Tarictic Hornbills, which successfully went through our rehabilitation process after being secured from illegal maintenance on Panay. These Tarictics are equipped with a transmitter when ready for release. This allows us to follow and record their whereabouts, foraging, diet and reproductive behaviour as well as their survival through time after release, with the first three components mentioned serving as short-term indicators of survival in the wild.

The bulk of the telemetry equipment ordered from Canada, which had been withheld by the customs in Manila was secured by us in 2006, so that in 2007 we will be able to execute the full-fledged telemetry programme funded to 95 % by Prof. Curio's foundation mentioned. The undertaking is thought to gain insight into the suitability of release as a conservation technique for strengthening the wild population of hornbills.

The project is jointly executed with ASU and being implemented in the field by one of our Philippine researchers who is supported continuously by volunteers from ASU and German universities (Station visitors' list: **App. 4**).

Many other research activities have been executed using the research station as a base camp with especially outstanding results in the fields of ornithology, herpetology and community ecology highlighted by a number of newly discovered species (see previous annual reports and below chap. 1.4.1).

1.1.4. Work Plan of PESCP for 2007

Specific Target	Activity
A. Habitat Protection, Environmental Law Enforcement and Rainforestation	
1. The appr. 40,000 ha of good forest still existing in the CPMR– the home of a certain number of critically endangered, endemic wildlife among them the last probably still viable populations of the Dulungan Hornbill (*Aceros waldeni*) and the Visayan Spotted Deer (*Cervus alfredi*) – are declared as a Protected Area (PA) according to the NIPAS Law.	**1.1** Requesting from the Government of the Philippines to declare the remaining good forest of the CPMR as a Protected Area after the NIPAS Law and Wildlife Law, where the latter one stipulates that any area being the home of a critically endangered wildlife species can be declared as a PA. Our "flag-ship" species in that endeavour will be the Dulungan and the Visayan Spotted Deer, and our most important argument are the 502 nest holes occupied by Dulungans and being protected by the PESCP in 2006. **1.2** Lobbying to win the sympathy and the support for that goal of politicians of the region and of all stakeholders of the area in question. **1.3** In cooperation with the DENR and ASU executing a survey covering the whole CPMR to investigate the state of the forest and to get a better idea about the size of the area to be involved (depends on funding from other sources = not yet secured) **1.4** Lobbying for and installing a CPMR Protection and Development Committee (CPMRPDC) under the leadership of PhilConserve with PESCP as the technical implementing organisation.
2. PESCP's Forest Ranger-based forest protection and environmental law enforcement is maintained in quality and adapted to the decrease in the number of FRs available from 16 in 2006 to 11 in 2007, with priority given to the CPMR.	**2.1** The number of days / months the PESCP FRs monitoring/patrolling the forest will be increased from to 18 to 20 days as a measure to compensate somehow the for decrease in the number of our FRs. **2.2** Having all the 11 FRs of PESCP deputized as Wildlife Enforcement Officers (WEOs) through the DENR. **2.3** Employing a field leader / officer as boss of the FRs who is able to speak English, is PC literate, and has shown in a probation time that he/ she is physically fit for the job and accepted by the FRs. He has also to ensure effective networking/cooperation between FRs, Police Forces (and other armed forces), DENR, PESCP, the communities and their administration.

	2.4 Improving the effectiveness of the FRs by deploying them in 2 groups (to cover a larger area per unit time) over the whole forested area of NWPP and CPMR in tight cooperation with Police, DENR and Communities in question, whereby these 2 groups operate independently but will be ready to join their forces if needed. **2.5** All operations of the FR will be recorded through the way-point programme of a GPS for improving our control over the activities of the FRs. **2.6** Executing 3 quarterly training sessions for the FRs in paralegal tasks and the law situation in the Philippines. **2.7** PESCP's anti-illegal logging programme, which during the last years offered to anybody who lawfully confiscated an illegally used chainsaw a apprehension fee of 5,000 will be continued with a reduced fee of 4,000 P per chainsaw and will be more propagated among the Police, military and CAFGUS. **2.8** To compensate for the reduced number of PESCP-FRs from 16 in 2006 to 11 in 2007 and to ensure better task sharing with LGUs we are preparing a section for the new environmental code of Pandan Municipality stating that barangays should participate in any of PESCP's forest monitoring missions in their area with at least two of their Tanods (Brgy Police).
3. PESCP's community-based habitat/forest protection is strengthened and substantially improved to become our second main tool in making habitat protection in the region sustainable.	**3.1** The conservation plans attached to livelihood alternatives must be improved in terms of reliability and controllability of the conservation tasks stipulated, and they will be monitored and controlled consistently by PESCP Wildlife Educators supported by Community Conservationists and LGU- Officers. **3.2** Many parts of the new environmental code for Pandan Municipality on which PESCP is working will be the legal base for a substantial improvement of the Brgy's/LGU's capacity to realize biodiversity conservation and sustainable use of natural resources. **3.3** To lesson the burden of illegal logging inside the public forests PESCP is presently proposing a paragraph for the new environmental code of Pandan requesting that each Brgy must install its own native timber and fruit tree nursery and its own 500 ha native timber and fruit tree plantation situated in public land, which later on should be sustainably used for generating income for the Brgy-LGU through sale of high quality timber. **3.4** Giant Bamboo planting on private land will be encouraged in all communities as timber replacement for house and boatbuilding activities to reduce the need for forest tree lumber.

4. The local task force Anak-Talon, initiated and planned by the NW Panay Biodiversity Management Council (NPBMC) in cooperation with PESCP and others to protect effectively the PA of the NWPP is operating effectively.	**4.1** As long as Anak-Talon is not fully operational (until now no operations at all) 1 Group of PESCP's FRs will monitor/patrol the NWPP PA at least once a week. **4.2** Lobbying in different ways (in the meetings of the CPBMC, through letters to the Mayors of Pandan, Libertad, Buruanga, Malay, Nabas, in media, etc.) to convince the 5 Municipal Mayors around the peninsula to allocate annually 200,000 P each for the operations of Anak-Talon – 1 million P would be needed for the proper protection of the PA through the task-force. Until now only 50,000 P from each municipality are planned to be given per year which allows monitoring the PA for ca 3 days / month only. **4.3** An already submitted special proposal for an FR-based protection of the NWPP PA jointly executed by PESCP and the Hon. Congressman Miraflores of Aklan will help to compensate for the decrease in the number of FRs if it pushes through.
5. The still existing remnants of good forest on Panay will be extended.	Based on 7 nurseries a total of ca. 100 ha will be rainforested with native forest trees in 2007.
B. Protection of Endangered/ Critically Endangered Wildlife	
6. PESCP's measures for the direct protection of critically endangered wildlife species like the Dulungan is continued and extended to cover a wider area occupied by that species and the total population living in the CPMR is known and protected.	**6.1** Meetings with our co-workers in the communities of the area in question will be executed to prepare them and the communities for the activities in the coming breeding season. **6.2** A certain number of Dulungan nest holes will be monitored at the start of the breeding season to enable us to fix the proper date for starting the pre-assessment. **6.3** Wildlife Educators, FRs, Community Conservationists and nest warden-turned hunters (in 6 groups) will execute a pre-assessment survey monitoring all single nest holes known after sealing of nest holes is complete to establish the number of occupied nest holes as a basic information. Special data per nest hole will be gathered as done in the years before. **6.4** Monitoring of nest holes during the whole breeding season will not be possible because of reduced funding **6.5** Due to reduced budget in 2007 a post-assessment for a certain number of selected nest holes only will be executed at the end of the breeding season to control success. **6.6** Final acknowledgment meetings in the provinces of Aklan and Antique with all staff, co-workers, LGUs and DENR will be replaced by less costly activities to compensate for reduced budgets.

C. Livelihood-based Sustainable Community Development	
7. In 2007 the volume of livelihoods will have to be reduced due to reduced funding, and special emphasis will be given to areas inhabited by critically endangered wildlife species like the Dulungan Hornbill and the Visayan Spotted Deer. .	**7.1** **I**n all communities covered by the formerly FZS/UNDP funded CoFoPa project (1 community in the NWPP PA and in 4 communities of the CPMR, the latter 4 in Dulungan and Spotted Deer forest land) the livelihood programme installed there during CoFoPa including pig and chicken breeding and fattening, production of organic fertilizer, agroforestry, sloping agriculture, and native timber and fruit tree farming, will be continuously supported and followed up. **7.2** Further livelihood programmes will be executed in 10 of the upland communities not covered by the CoFoPa project but involved in our Dulungan project. **7.3** The monitoring of the Conservation Plans related to each of the livelihoods will be ensured by giving monitoring responsibility to one Community Conservationist attached to each of the livelihoods. **7.4** Well experienced sen. staff of ASU and National Agricultural Offices will be recruited for professional execution of livelihoods.

D. Conservation and Development Education	
8. PESCP's conservation and development education effort is improved and the area covered is extended.	**8.1** Conservation and development activities/campaigns will be executed in all communities involved in our programmes. **8.2** PESCP staff will execute conservation and development campaigns in schools in all four provinces of Panay. **8.3** The reha facilities and the Station will be used for educational events allowing the students at the same time to see Philippine wildlife.
E. Nationalization / Sustainabilization of PESCP's Activities and Programmes	
9. The integration of PESCP's vision and programmes into Philippine society is improved.	**9.1** The cooperation with ASU where PESCP's Manager holds the position of the Environment Programme Coordinator will be strengthened by involving ASU more tightly into our activities, e.g., in our telemetry project focusing on the protection of Tarictic Hornbills in the wild, PESCP's/ BIOPAT's Mabitang project and other projects. **9.2** PESCP's endeavours to empower upland communities to refrain from illegal use of the forests will be supported by the livelihood

	alternatives planned and through the persistent execution/monitoring of conservation plans attached. **9.3** The Philippine NGO "PhilConserve" established by PESCP in 2005 will be used as a tool to enable PESCP to request for funding from Philippine and international sources. **9.4** PESCP's partnership with the DENR will focus more and more on the strengthening of the DENR as the lead agency in the field of the protection and sustainable use of natural resources in the country.
F. Rehabilitation and Release of Captive Wildlife	
10. Due to decreased funding and due to our policy to focus on forest protection only 5% of FZS's funding for PESCP in 2007 goes into reha and release activities. The other 95 % will have to be made available through Prof. Curio's foundation.	**10.1** Incoming wildlife of Panay will be rehabilitated and released as far as possible. **10.2** Survival chances of Tarictic and Dulungan Hornbills after being released will be monitored through telemetry.
G. Conservation Research: See also chap. 1.4	
11. PESCP' conservation research is improved.	**11.1** Increasing the number of researchers willing to execute long-term research at the station.

1.1.5. Agreement on Results

(Work Plan for 2007 – 2008 of the Manager of PESCP in his position as the Environment Programme Coordinator of ASU, Philippines/Integrated Expert of GTZ/CIM, Germany, co-sponsored by the Frankfurt Zoological Society [FZS], Germany)

Aklan State University's (ASU) environment programme will be improved and considerably expanded so that ASU will be able to meet the ever increasing needs for the conservation of a healthy environment and the sustainable use of natural resources to the benefit of the people living in the rural communities.

This target was formulated in 2003 by ASU in cooperation with Mr. Thomas Kuenzel and the Philippine Endemic Species Conservation Project (PESCP) in a 4-year development plan when requesting from GTZ/CIM to support ASU's Environment Programme Coordinator (EPC) who acts at the same time as the Manager of PESCP, which is mainly sponsored by the FZS for four years through GTZ/CIM's programme of Integrated Experts (IE).

Unfortunately, GTZ/CIM's decision - based on restricted funds in 2003 - to support ASU's EPC as an IE for one year only did not meet the need but at least gave ASU and PESCP the chance to realize the initial phase of the 4-years joint development plan mentioned.

Continuation of the very successful work of the EPC of ASU and as Manager of PESCP in 2005 had been realized despite a tight financial situation of GTZ/CIM's Programme of IEs, with funding coming from the German Government. In this situation Mr. Kuenzel, supported by Prof. Dr. Eberhard Curio (Director PESCP), was able to convince the FZS to share funding

with GTZ/CIM, allowing Mr. Kuenzel to continue his work both as ASU's EPC and PESCP's Manager until end of 2006.

It is now that all entities involved can realize that the programme has been started and implemented with great success in the time period 2004 – 2006. .Special thanks goes to the leader of UNDP-Philippines, Mr. Glen de Castro, who supported the joint request of PESCP and the 25-Peso-Multipurpose Coop of ASU proposing the execution of CoFoPa, an UNDP sponsored rainforestation and livelihood programme. But all of those concerned must also see the need for continuity with regard to improvement and sustainability. For that continuation to prosper PESCP erected the NGO "PhilConserve" with ASU's EPC being a member of its Board of Directors, that submitted a 1.2 million US$ proposal about conservation and development to the World Bank, with PESCP being assigned the role of implementer. That proposal has been passing already the screening committee for being endorsed by the DENR to the World Bank

In the following table we are presenting an Agreement on Results for 2007-2008, based on what has been achieved and learned already during the last three years, in addition to the activities/tasks for 2007 – 2008.

Results (What are the outcomes to be achieved?)	**Indicators (How can the results be identified/ measured?)**	**What is the situation in relation to each individual result?**
1st RESULT: The PESCP in cooperation with ASU is annually raising a total fund of at least 100, 000 US$ to be used for conservation and development activi-ties / programmes on Panay Island planned and executed as much as possible jointly by PESCP and ASU.	**Indicator 1.1** Amount of funding money raised.	**Situation 1.1** During 2004-06 ASU's, PESCP's, and ASU's Coop joint fund raising effort has been rather successful. But it was felt, that (a) a university is not eligible for most donor organisations, and (b) the 25-Peso-Coop mainly made up of ASU staff is having its experience in the field of loans more-or-less only, and it is a Coop not an NGO. That UNDP accepted the 25-P-Coop as proponent for our joint (PESCP, 25-P-Coop, ASU) UNDP-sponsored CoFoPa project was an exception due to UNDP being convinced of PESCP's capacity as a technical implementer (in tight cooperation with ASU experts; ASU's Prof. Dr. Roger Felizardo is the Manager of the CoFoPa project, and ASU's EPC Mr. Thomas Kuenzel is the Poject Supervisor of CoFoPa). The UNDP-funded CoFoPa project ended officially Sept 06, but will have an extension period of 4 months until end of January 2007. **Situation 1.2** Therefore, to add to PESCP's fund

		raising capacity a proper environment-concerned NGO was needed, which now is PhilConserve created by PESCP in 2005 as its umbrella organisation here in the Philippines. In 2006 ASU's EPC, Mr. Thomas Kuenzel, is holding the position of the Treasurer of the NGO PhilConserve and is by default member of its Board of Directors. **Situation 1.3** PhilConserve, with its implementer PESCP as partner of ASU, submitted a 1.2 million US$ proposal (3 years project time) targeting conservation and development to the World Bank. That proposal has been passing already the screening committee for endorsement by the DENR to the World Bank. We are awaiting the World Bank's further decision.
2nd RESULT: The nationalization and becoming sustainable of PESCP's activities in partnership with ASU, DENR and the NGO PhilConserve is successfully on its way.	**Indicator 2.1** PESCP is functioning as an "Extension Programme Partner" of ASU while PESCP is maintaining its financial and political independency. This improved status of our partnership with ASU will be reflected and guaranteed by a MOA. **Indicator 2.2** PESCP will be mentioned in ASU's Annual Report as ASU's political and financial independent extension partner in environmental conservation and sustainable development of upland communities on Panay. **Indicator 2.3** An official "Forum for Joint ASU/PESCP Projects" is installed in	**Situation 2.1** In earlier formulations of that result we used the term "Extension Office" instead of Extension Programme Partner. But to become an official Extension Office of a Philippine university and at the same time maintaining financial and political independence seems not to be possible with regard to the official background/ law conditions based on which universities are working here in the country. On the other hand, it would not be of advantage for ASU if PESCP would become equally tied-up to the restrictions of the Philippine university system as ASU is already. It is better therefore that PESCP be termed an "Extension Programme Partner" to maintain independence of both institutions while collaborating on mutually agreed programmes. **Situation 2.2** ASU and PESCP worked in the past 3 years very successfully together in many activities / programmes related to environmental conservation and sustainable development of upland communities on Panay. Especial mention

	ASU and works, and at least one of its members is regular invited to all ASU's official meetings / planning sessions concerned about the environment. **Indicator 2.4** A MOA between PESCP and the DENR signed by the SECY DENR exists in addition to a MOA between the PESCP and PhilConserve . **Indicator 2.5** Indicators are the "Environmental Law Enforcement Reports" of PESCP used by the DENR to file cases against illegalists. And the DENR's correspondence with PESCP, and invitations of PESCP-FRs to participate in public hearings where the affidavits of PESCP-FRs are used as a basic document in confronting the illegalists with their illegal activities.	deserves here our joint CoFoPa project mainly sponsored by UNDP. Much more participation of highly specialized ASU staff in PESCP projects are needed to improve the quality of PESCP's livelihood projects but has not yet been realized sufficiently. One reason could be that joint activities with PESCP are not yet properly reflected in the work plan of ASU staff. Therefore, ASU staffoften have difficulties beside their work plan with ASU to find time for participating in PESCP projects. Furthermore, ASU is still not making full use of PESCP projects and expertise as a practical training ground for their students. One reason for this seems to be a certain inflexibility of the whole teaching system prevailing in the Philippines. It is hoped that ASU's academe will make more often use of PESCP's research station in the NWPP for students when it comes to field data collection for Master and PhD theses in the coming two years. **Situation 2.3** During the last 12 years a number of MOAs signed by the Secretary of the DENR have been the basic documents for PESCP's partnership with the DENR. And our latest MOA is valid until 2010. **Situation 2.4** It is already a standard operating procedure that PESCP (in cooperation with ASU) is tightly working together with the DENR in all environmental law enforcement activities.
3rd RESULT: PESCP Forest Rangers (FRs) protect the Panay forests. .	**Indicator 3.1** Numbers of FRs deployed in the forests of the CPMR and in the NWPP PA.100 % would be 1 FR / 500 ha forest equivalent to a needed number of FRs as follows: 100 FRs for CPMR + 24 FRs for NWPP PA.	**Situation 3.1** A PESCP FR-based programme is executed in the NWPP PA as part of the task force Anak-Talon, which was established 2 years ago. Until now the PAMB of the NWPP PA is not able to raise the funds needed for the task force to become operational. The 5 municipalities surrounding the forest of the NWPP PA are unwilling to fulfill their promises given two years ago about

	Indicator 3.2 Amount of illegally cut wood, number of illegally used chainsaws, and number of snares recovered and/or apprehended by the FRs in tight cooperation with DENR, Police, Military, and LGUs. **Indicator 3.3** All FRs are mandated by the DENR through a deputation as Deputy Environment Officers (DENRO) or another type of environment-related deputation. **Indicator 3.4** Number of PESCP FRs jointly sponsored by the Hon. Congressman Florencio T. Miraflores (District Aklan) and PESCP.	financing that task force. As long as the task force is not working a total of 24 FRs would be needed to protect that PA – but, only 10 FRs are available (7 from PESCP, 3 from another NGO). This lack of protection leads to a situation where illegalists enter the PA and execute slash-and-burn as being detected by PESCP FRs in 2005 and again in 2006. If the task force is not empowered to start its protection activities very soon then the forest of the PA will not survive the next 20 years. In 2007 we will face the next election time here in the Philippines, and based on our experience, we fear that illegal logging will increase because activities curbing them will be given little attention to the benefit of the upcoming election. **Situation 3.2** The still existing forests in the CPMR (40,000 ha) and in NWPP (5,000 ha) and their wildlife are extremely threatened by illegal slash-and-burn, illegal logging and poaching. The DENR being mandated to protect these forests does not have the necessary means/budgets to act according to that mandate – very unfortunately, the Government of the Philippines does not make available the financial means the DENR needs to fulfil its mandate. DENR Officers being strict against illegal loggers from influential families are threatened by being marked for getting killed by these illegalists as it happened these days with the DENR PENRO of Antique – no scheme is in sight of how the Government wants to protect these DENR officers. Unfortunately, the police only very seldom is executing forest patrolling. Nearly everybody seems to wait for help from outside as e.g., from PESCP. But waiting for/relying on help from outside only does not lead to sustainability. The government together with the LGUs must take over the responsibility to protect the forest and the staff being mandated with that task. In the case of NWPP PA the LGUs could do so by

		making available the money for the task force Anak-Talon.
4th Result: ASU / PESCP join hands in helping upland communities to realize a precautionary economic development empowering them to refrain from activities harmful to the environment is substantially improved.	**Indicator 4.1** Number of livelihood projects jointly implemented by PESCP/ ASU. Two of them are partly sponsored by the Hon. Congress-man Florencio T. Miraflores (District Aklan). **Indicator 4.2** The Rainforestation Pilot Project in Castillo (extension area of ASU) is established, works well, and is accepted by the rural communities as a demonstration farm. **Indicator 4.3** The Sloping-Agriculture-Pilot Project in Castillo is established, works well, and is accepted by the rural communities as a demonstration farm. **Indicator 4.4** The conservation and development programmes in the 4 counterpart communities of UNDP sponsored CoFoPa project and in other counterpart communities are implemented, are working, and are continuously monitored / followed-up jointly by PESCP/ASU. **Indicator 4.5** The Sloping-Agriculture-Projects in Pawa (Nabas) and other counterpart communities are established & work well.	**Situation 4.1** Based on financial restrictions the number of livelihood projects implemented through the official extension service of ASU's environment programme still meets the actual needs of the upland communities only to a small extent. **Situation 4.2** Joint effort of PESCP, ASU and the 25-Peso-Coop of ASU convinced UNDP-Philippines to entrust them with the execution of CoFoPa (rainforestation and livelihood project) during Mar 05 – Sep 06 with a total budget of ca. 60, 000 US$. **Situation 4.3** Since in the whole Panay/Philippines the economic situation of the upland communities is very unsatisfying, and therefore many uplanders still depend on unsustainable use of forest products it is one of the most pressing tasks for NGOs to improve the economic situation of the upland communities, to empower them to refrain from illegal activities.

	Indicator 4.6 The livelihood project (weaving end-products and production of raw material from Pina and Abaca) in the upland community of Castillo is implemented and works well.	
5th Result : A modern Department for Applied Environmental Sciences is established in ASU.	**Indicator 5.1** The blueprint of an advanced environment sciences curriculum is available. **Indicator 5.2** A German scientist / lecturer experienced in this field helps ASU to develop a modern Department of Applied Environmental Sciences. **Indicator 5.3** A payment modus attractive for the scientist as mentioned under 5.2 is available from a German / international institution.	**Situation 5.1** If given the necessary support ASU will be one of the coming main players for the economic development and protection of the environment in the CPMR with regard to ASU's potential in transferring scientific knowledge to practical development and conservation activities. **Situation 5.2** ASU's environment sciences curriculum is still in a preliminary phase.
6th Result: ASU and PESCP jointly increased substantially their effort to implement community-based measures for the direct protection of critically endanger-red wildlife like hornbills and parrots still occurring in the CPMR	**Indicator 6.1** Number of protected nest holes occupied by hornbills as "flag-ship" species. **Indicator 6.2** Number of Community Conservationists and other conservation co-workers working for PESCP / ASU in that project. **Indicator 6.3** Pre- and post-assessment evaluations of the status of these wildlife are	**Situation 6.1** Notwithstanding the fact that PESCP/ASU hornbill protection activities have reduced nest hole poaching from more than 50 % to 5 % during the last 5 years in the areas involved in our conservation programme it must be understood that many parts of the forest and its wildlife are still unprotected in large areas of the CPMR and the NWPP PA. **Situation 6.2** We estimate that the 502 nest holes occupied by the Dulungan hornbill in the CPMR and protected through PESCP/ASU activities in 2006 is ca. 75 % of the whole population of that species

	available, and a substantial threat reduction is achieved.	in the whole of the CPMR.
7th Result: PESCP, in tight co-operation with ASU, is implementing an integrated coastal and upland development and biodiversity conserva-tion project (ICUP) as a large-scale showcase for the region. This result has been / will be realized step-by-step in modules as incoming funds allow.	**Indicator 7.1** The plan for the showcase ICUP is available at least for some of its modules. **Indicator 7.2** The budget for the showcase project is available at least for some of its modules. **Indicator 7.3** Some modules of ICUP have been implemented already and are working, others are still in the planning and execution phase.	**Situation 7.1** No large-scale, comprehensive IUCP has yet been planned and/or implemented in the whole Western Visayas. **Situation 7.2** All projects implemented by PESCP and or ASU (see the UNDP-funded CoFoPa project) are modules/part of ICUP but many more modules (see the planned World bank project) have to be added to reach that result.
8th Result: PESCP, in tight cooperation with ASU and DENR, is operating a horn-bill rehabilitation and release programme.	**Indicator 8.1** PESCP as mandated per MOA by the DENR is maintaining reha and release facilities for endangered Panay wildlife. **Indicator 8.2** The telemetry method chosen to investigate the hornbill movements in the forest of the NWPP works well.	**Situation 8.1** Since 1997 PESCP maintains reha and release facilities as follows: In northern Antique in Mag-aba (Pandan) and in Bulanao (Libertad); in Aklan in Buruanga (PESCP Research Station inside the NWPP PA). **Situation 8.2** The number of wildlife being confiscated decreased from year to year as a result of the conservation education effort of PESCP in tight cooperation with ASU and its law enforcement activities. **Situation 8.3** There is still not enough information available about the biology of the hornbills, which is a hindrance for the improvement of already executed protection activities. **Situation 8. 4** In a first “pilot” phase, a 12 months project mainly funded by HARIBON has

		been implemented using PESCP's reha facilities including PESCP's research station in the PA forest of the NWPP.
9th Result: PESCP is managed satisfactorily well by ASU's Liaison Officer for External Environment-related Activities Within the scope of Mr. Thomas Kuenzel's position as ASU's EPC he acts also as the Manager of PESCP on behalf of FZS and GTZ/CIM. The tasks of the Manager of PESCP are outlined in its Annual Activity Plan, which he has to prepare every year for FZS. The Annual Activity Plan for 2006 is attached here as an example. The Annual Activity Plan for 2007 will be presented to FZS in Dec 2006.	**Indicator 9.1** Mr. Thomas Kuenzel works as the Manager of PESCP. **Indicator 9.2** PESCP's work programme outlined in its Annual Plan submitted to FZS is successfully executed (see PESCP's Annual Report of Achievements).	**Situation 9.1** Since 2001 Mr. Kuenzel acts with high efficiency as the Manager of PESCP, whose work is appreciated by local counterpart communities, LGUs, the DENR, and must therefore be continued.
10th Result The Status of a Protected Area is requested for the forests in the CPMR where the Dulungan Hornbill occurs, and accordingly a procedure is executed/followed-up.	**Indicator 10. 1** Documents exchanged with the DENR. **Indicator 10. 2** Sate of affairs is outlined in detail. **Indicator 10. 3** A Peoples Organisation is working to give the forests of the CPMR the status of a Protected	**Situation 10.1** Over 10 years ago the status of a Protected Area has been requested for the CPMR from the DENR. Until today no tangible result has come forth. The forest with the last viable population of the Dulungan Hornbill is not protected under the NIPAS Law.

	Area. That PO comprises all people in the CPMR working with PESCP / ASU for the protection of the Dulungan (Community Conservationists, Dulungan nest hole wardens, Forest Rangers, etc) and representatives of our counterpart communities).	

Activities / Tasks:
(key contributions to the achievement of individual results)

For result no. 1.
This result is expected to be successfully reached through (a) actively maintaining PESCP's first class reputation in conservation and development work obtained during the last 11 years PESCP being already active in Western Visayas, and using this as a valuable basis for fund raising, and (b) PESCP maintaining its status as a project of the FZS and its MOA-based partnership with the DENR, and (d) using the status of PhilConserve as a registered Philippine NGO newly created by PESCP and being eligible to request funds from all types of donor agencies/organisations.

For result no. 2.
PESCP (in agreement with the FZS) in its effort to more and more nationalize its activities (important step towards sustainability) will maintain and improve its status as ASU's Extension Partner (in upland development and conservation) maintaining its political, financial and management independence, while focusing on biodiversity conservation, habitat protection and a precautionary economic development of the region.

To be able to realize the targeted improvement in the cooperation between the two institutions a PESCP-ASU Forum / Working Group in ASU manned by ASU and PESCP staff will have to be installed, which should meet at least 4 times per year in ASU. That Forum must have the right to formulate resolutions dealing with the improvement of joint activities between ASU and PESCP to be submitted to the President and the Board of Directors of ASU, and at least one member of that Forum must be invited by ASU whenever environment-related matters are discussed and or planned by ASU to ensure continuity in the exchange of environment-related information between ASU and PESCP, and to avoid time and money wasting doubling of effort and activities.

The second very important partner in our effort to nationalize PESCP's effort is the DENR, which is the lead agency with regard to sustainable use and conservation of natural resources. Therefore, PESCP has to maintain and to improve tight cooperation with the DENR in all our activities / projects.

For result no. 3.
In 2007 additional funding is needed for 14 additional FRs (as long as the task force Anak-Talon is not yet working) to be actively deployed for the protection of the PA of the NW

PP, and for 94 additional FRs to be actively deployed for the protection of the forest of the CPMR, which until now has no protection status at all.

All FRs must be deputized by the DENR as Deputy Environment Resource Officers or in any other related position

For result no. 4.
PESCP/ASU together help the people in the uplands/our counterpart communities to plan and to execute/implement livelihood programmes needed to ensure these communities can realize a sustainable economic development, which empowers them to refrain from activities being harmful to the environment.

The most important pre-condition to reach that result is success in fundraising. Therefore, PESCP/ASU and PESCP/PhilConserve must undertake all effort necessary to be successful in raising funds in addition to the funds coming from FZS.

For result no. 5.
A qualified researcher must be found who is willing to stay with ASU for at least 5 years, and an organisation must be found, which is willing to fund the position of that researcher. According activities will be executed in cooperation with Prof. Dr. Curio, Director of PESCP.

For result no. 6.
A Peoples Organisation has to be established embracing all PESCP's co-workers (Community Conservationists, hornbill nest wardens, Forest Rangers, other relevant people from our counterpart communities). In tight cooperation with PESCP/ASU, that PO has to become the main player in requesting from the DENR to give the forests of the CPMR the status of a PA. Within the scope of this request the existence of the last viable population of the critically endangered Dulungan Hornbill and that of the even more endangered Spotted Deer in these forests must be used/ played out as the most powerful argument.

PESCP's working relationship with the Community Conservationists, hornbill nest wardens, LGUs, and other relevant people living in Dulungan forest land must be maintained and strengthened.

The direct measures for the protection of the last viable population of the Dulungan must be continued regarding that the protection effort spent for the Dulungan as a "flagship" species will also have its very much needed protective effect for many other species and their habitat - the forest

For result no. 7.
PESCP/ASU will team up with other relevant organisations for coordination and cooperation with special emphasis to coastal protection programmes executed by Government and NGOs in northern Antique and northern Aklan.

The number of upland communities involved in PESCP's / ASU's development and environmental conservation programme must be increased. Therefore, flanking fundraising activities must be executed.

For result no. 8.
Now, in a second phase, telemetry will be extensively used to get information about the

hornbill activities and survival rate in the wild. The realization of the second phase is possible because after 2 years the custom office in Manila released PESCP's telemetry equipment.

ASU must nominate one of their researchers as counterpart in the field operation of that project.

PESCP is in the process of replacing our past researcher, who left the project end of Aug 2006 for personal reasons.

For result no. 9.
The management of PESCP must be continued as successfully as during the last 5 years and possibly being improved.

For result no. 10.
A Peoples Organisation has to be established embracing all PESCP's co-workers (Community Conservationists, Hornbill nest wardens, other relevant people from our counterpart communities). That PO, in tight cooperation with PESCP/ASU, has to act as the main player in requesting from the DENR to give the forests of the CPMR the status of a PA.

The support of high profile Philippine personalities must be ensured. In this context our already existing good contacts to former President Ramos who is interested in the protection and maintenance of the country's biodiversity, must be tapped.

1.1.6 Letter of Complaint to a Mayor

Editor's note: Whilst correspondence among agencies/ entities is usually understood as involving only the partners participating in it there may occasionally be special reasons for making it public. For reasons of illustrating the often tough situation at the barangay level we have decided to publish in the following a complaint of PESCP's Manager about the handling of what appears to be the responsibility of a mayor who ex officio is entrusted with looking after the well-being of his constituents. We feel that the neglect of the responsibility in the present case calls for discussion.

Philippine Association for Conservation and Development (PhilConserve)

Philippine Endemic Species Conservation Project (PESCP)
of the Frankfurt Zoological Society, Germany,
Ruhr University Bochum, Germany,
Aklan State University, Philippines,
in cooperation with
GTZ/CIM, Germany
PESCP Office, Tajanlangit Bldg., Centro Norte, Pandan, Antique
Ecurio@gmx.de thomaskuenzel2@yahoo.de

PESCP: Official Partner of the DENR through MOA

04 December, 2006

To: Hon Mayor Jose Christopher A. Varona
Municipality Sebaste, Antique

Hon Mayor Jose Christopher A. Varona,

The violent development around a case of large scale illegal logging in Sebaste where a family of one of PESCP's Community Conservationists (Mr. "Val" Romeo F. Agustin) living in Brgy Poblacion, Sebaste, repeatedly has been harassed and threatened to be killed by a certain "Oto" Tenorio and his gang of followers makes us to submit this communication to you seeking your intervention to stop the violence against the family Agustin.
In the following you find please a short "listing" of the happenings to inform you about the scenario, and alert you about the possible destructive outbreak of violence in your area of jurisdiction:

Tuesday, 28 Nov

1) In the morning of Nov 28 PESCP in Pandan was informed about illegal logging in Sebaste area, and our Forest Rangers were sent to the area. They found and brought to the Police Station Sebaste ca. **23 bd ft illegally cut lumber** (see the here attached PESCP-ELER-No 28).

2) The same day PESCP was informed that illegally cut lumber was stowed away in a certain house in Brgy Poblacion Sebaste. PESCP FRs and Manager together with Police Sebaste and the help of your Office apprehended ca. **692 bd ft of illegally cut lumber**, which was freely surrendered by Mrs. Jessica Miraflores, wife of the house owner, and given into the custody of Sebaste Police (see the here attached PESCP-ELER-No. 29).

Wednesday, 29 Nov

2) PESCP was informed that one of our Community Conservationists, Mr. "Val" Romeo F. Agustin of Brgy Poblacion Sebaste was harassed (accusing Val to be the informant about Oto's illegal logging activities now and even 1 year ago, drawing out his talibong and threatening Val to kill him) by "Oto" Jimmy Tenorio

3) of Brgy Poblacion, Sebaste. That case was blottered by the Police of Sebaste the same day (see the attached Sebaste Police blotter report [left out here. Ed]).

4) PESCP-FRs visited the Brgy Cptn of Poblacion Sebaste, Hon Gregorio R. Bendol, to inform him about the situation with special concern about the illegal activities of "Oto" Jimmy Tenorio who is known in the whole Brgy as being a close helper/friend of the Brgy Cptn of Poblacion Sebaste. During that occasion the Brgy Cptn of Poblacion Sebaste informed our FRs that he himself had ordered Oto to cut lumber for the Brgy Cptn, which (307 bd ft of Lauan tree) he received already and used that lumber to produce furniture. The Brgy Cptn did not have legal papers from the DENR to cut Lauan trees – therefore, the Brgy Cptn himself ordered illegal logging and used illegally cut lumber for producing furniture (see PESCP-ELER-No. 30).
Furthermore, the Brgy Cptn of Poblacion Sebaste informed our FRs that he had ordered already more lumber to be brought to him, and he was very much concerned about the lumber confiscated by our FRs the day before.

5) Because the Brgy Cptn's talk that he still expects more lumber to be illegally cut for him PESCP's FRs went out for another overnight monitoring mission together with 1 Tanod from Brgy Poblacion Sebaste.

Thursday, 30 Nov

6) This day PESCP-FRs returned from their overnight monitoring mission and brought back and handed over to the Sebaste Police 143 bd ft lumber made out of illegally cut naturally grown Baslayan and Balakbakan trees (see the here attached PESCP-ELER-No. 31).

7) From 08:00 PM – 11:00 PM the house of our CC, "Val" Romeo F. Agustin, where his wife stood together with 6 children was stoned by "Oto" Jimmy Tenorio (the helper of the Brgy Cptn of Poblacion Sebaste) and a gang of his followers (see here attached the 2 Affidavits from "Val" Romeo F. Agustin and from his wife, Helen).

Friday, 01 Dec

8) Around 02:00 PM "Val" Romeo F. Agustin came to PESCP's Office in Pandan reporting about the stoning of his house, being afraid to be killed. Therefore, PESCP sent him for a couple of days to a safe place.

9) PESCP-FRs and Manager went to Sebaste to coordinate with the Police the safe guarding of Val's house until 08:00 PM, and 3 PESCP-FRs where deployed to stay in Val's house the whole night until the morning of 02 Dec.

10) In late afternoon PESCP-FRs and Manager were able to meet the Police Director of Antique to explain the situation to him, asking his special attention to the possible outbreak of destructive violence, and to alert him about the involvement of the Brgy Cptn of Poblacion Sebaste.

Saturday, 02 Dec

11) Mrs. Helen Agustin was so afraid about the situation that she together with her 6 children had to leave her own house to stay a couple of days in a friend's (Mr. Jerry Calawod of Poblacion Sebaste) house for safekeeping.

Sunday, 03 Dec

12) PESCP was informed that during the night from Saturday to Sunday even the house of Jerry Calawod where Helen Agustin stayed with her 6 children has been surrounded by 4 or more men obviously to put pressure of fear to Helen Agustin.

13) PESCP was also informed that the wife of Oto, Lydia Tenorio, threatened the smaller children of Helen Agustin, telling them that Tenorio's wife could even kill children.

We are adding here, that on Saturday morning the Police safeguarded Helen Agustin by seeing the Brgy Cptn to complain about "Oto" Jimmy Tenorio. The Brgy Secretary refused to accept the complaint telling them that the Brgy could not attend to this case before Tuesday, 05 December. We understand from this that the Brgy authorities are misusing their mandate in a case where a friend/helper of the Brgy Cptn is involved in illegal activities – this is an unacceptable act of misusing a political mandate.

Hon. Mayor, from the information of this letter it becomes very obvious that a group of well organized illegalists, which are cooperating with the Brgy Cptn of Poblacion Sebaste, are terrorizing people in your area of jurisdiction. We are especially concerned about the fact that the family terrorized by the illegalists are people who have been active combatants in the NPA, and who have fallen under amnesty in the late 90ies, and since then have been law following civilians minding their own private business only. Val himself has been working for you for some time. Therefore, we cannot avoid to send a copy of this letter also to the Department of Social Welfare and Development in S. Jose.

We are thanking you for your professionally sound reaction to end this unacceptable violence against a civilian family in your area of jurisdiction.

Sincerely yours,

Thomas Kuenzel
Manager PESCP, Environment Program Coordinator Aklan State University,
Integrated expert GTZ/CIM Germany,

PS
We hope that your help will be successfully stopping the violence against the family mentioned here. Should your intervention not be successful we are offering to give this document to the media where we have some friends who are always ready to publish something like this especially when NPA matters are concerned.

CCs
- Provincial Director of Police of Antique
- Police of Sebaste
- RED Reg. VI DENR, Iloilo
- Brgy Cptn of Poblacion Sebaste
- Dpmt. of Social Welfare and Development, S. Jose, Antique

[The above letter has only been corrected for typos and other minor details. Ed.]

1.2. Community-based Accomplishments

1.2.1 Community-based Maintenance and Restoration of Forests in Central Panay Mountain Range and Protected Area of Northwest Panay Peninsula: CoFoPa Project - an Accomplishment and Progress Report

By

John R. Espiritu, Forester, & Sonny Galuego, Forester Assistant

Introduction

The CoFoPa project, deriving its acronym from the name entitling this report, is implemented by the PESCP with the assistance of and in partnership with the Twenty-Five Peso Multi-Purpose Cooperative (TFPMPC) of Aklan State University (ASU), Banga, Aklan, and funded by the EU/ UNDP (United Nations Development Programme). The project started in March 2005, ended September 2006, and was extended for three months (Oct-Dec 06) to conduct some activities which were not accomplished by Sep 06.

There are two provinces covered by CoFoPa project. These are the Province of Antique covering Barangays San Juan (Libertad), Calabanog and Idiacacan (Pandan), Idio (Sebaste) and Alojipan (Culasi), and Province of Aklan, Barangay Castillo (Makato) where a pilot project is located. The CoFoPa Project has four project components, namely a Nursery Development Project, an Agroforestry Development Project, a Rainforestation Development Project (the present progress report), and a Livelihood Project component (Henry Dungganon's report, chap. 1.2.2).

Project background

Panay Island has an area of approximately 11,520 km² and lies between latitude 11°55' and 10°24' N, and longitude 121°24' and 123°9' E. It is bounded to the north by the Sibuyan Sea, to the west by Cuyo East Pass and on the south by the Sulu Sea.

Panay is the sixth largest island in the Philippine archipelago and retains approximately 8% of the original, primary forest consisting of 45,000 hectares on two mountain landscapes. A rare, low-elevation forest tract of ca. 5-7000 ha, much of which is on rugged, limestone topography, lies in the NW Panay Peninsula; it is a mixture of primary, secondary and selectively logged forest with identifiable pockets and corridors suitable for ecological restoration.

The remaining 40,000 ha of primary forest is largely montane and covers the Central Panay Mountains at elevations above 900 m, although fingers of quality forest survive at lower elevations in valleys and recent field surveys have identified limestone forest at a lower elevation in the northern reaches of the range. Varying in size, primary forest in Central Panay is fragmented into 13 separate tracts, some or all of which are suitable for corridor development.

The demand for kaingin-land, timber, fuel-wood, and other forest products is steadily growing and increases the pressure on the remaining forested areas. Substituting alternative

technologies are available only to a very limited degree in the current socio-economic regime. The current demand for forest resources must be replaced with more sustainable alternatives at the earliest possible time and be made to anticipate future needs.

In most tropical parts of the world, shifting cultivation was the first form of agroforestry. It is characterized by the sequential rotation of forest vegetation and cultivated food crops, and is closely linked to socio-cultural values that are central to the lives and livelihood of shifting cultivators and their communities. Other terms used to refer to this practice include "swidden agriculture" and slash-and-burn agriculture.

In the past, low population density and abundant forest cover lent itself to a propitious base for sustainable shifting cultivation practices with long fallow periods ranging from 10 to 60 years. However, the conditions that historically allowed the sustainability of rotations of long fallow periods have vanished in most areas.

In the Philippines, the forest has been reduced by unsustainable use practices to ca. 18% in comparison to the forest existing 100 years ago. This tremendous loss of forested areas resulted already in:

(1) Large scale landslides occurring after heavy rains and killing hundreds of people,

(2) In massive erosions where thousands of tons of topsoil are washed away finding its way through the rivers into the coastal areas where it devastates the coral reefs, which have been the living ground of formerly rich fish populations,

(3) In a shortage of clean drinking water, which is one of the most important natural gifts for the whole nation, and

(4) In an already measurable change of the local climates.

To stop and possibly reverse this trend, the existing forest remnants have to be preserved by appropriate conservation measures against illegal logging and illegal kaingin (slash-and-burn) and have to be expanded by reforestation activities.

This will be only possible with the support of the rural populations, which are living in and around the forested areas and which are still depending in their livelihood on the use of the forest. To empower these people to maintain the forest where they are living from instead of killing it by nowadays-unsustainable activities, it is necessary to help them to shift to livelihood activities, which are sustainable and guarantee the existence of an intact and utilizable forest for the coming generations.

The highlights of the project components are as follows.

Objectives: General

The over-all objective/goal of the project is to empower the people in the counterpart communities to improve their livelihood and income situation through a precautionary, sustainable use of their natural resources.

Specific objectives are:

1. To enable the counterpart communities to refrain from activities being destructive to their environment.
2. To let understand and appreciate the value of forests.
3. To protect the forest against further destruction.
4. To let the counterpart communities appreciate and practice upland conservation farming.

Nursery development sub-project

There were five permanent nursery projects constructed in five sites as mentioned above, of which four nurseries cover an area of 72 sqm and one in ASU-Castillo Campus covers an area of 100 sqm. The seedlings raised in five nurseries were both native timber trees and fruit trees (see front cover for illustration).

As of this year, the nurseries yielded the following numbers of potted seedlings that were out planted. The species composition of native timber trees and fruit trees raised for out planting is detailed in **App. 5**.

Agroforestry development sub-projcet

A total of 58 agroforestry adopters were established, of which, 40 of whom live in the Province of Antique (4 project sites mentioned in App. 5) and 18 in the Province of Aklan (Brgy. Castillo, Makato). All adopters adopted the agroforestry farming system as an agricultural farming system instead of "kaingin farming" and there were indications of decreasing "kaingin" in the project sites mentioned. With this positive project development, other people in the community will be encouraged to adopt also the agroforestry farming system.

Integrated crops were planted in an integrated scheme in their respective agroforestry farm sites such as: grafted fruit trees, different kinds of banana, vegetables, etc which add to the income of and consumption in the households, thus supporting their daily needs. The sub-project was continuously developed by the adopters towards sustainability as a major target.

Rainforestation development sub-project

Planning

A total of 96.6 hectares will be reforested and a total of 60,375 native timber tree seedlings are to be planted in rainforestation project sites. Each project site comprised an area of 19.32 hectares with a total of 12,075 native timber tree seedlings.

Actual state

A total of 10,531 native timber tree seedlings and 717 fruit tree seedlings were outplanted, with the former covering an area of appr. 16.8 hectares laid out in 4 m by 4 m plots.

.
The following were distributed/ outplanted in five (5) project sites as follows:

PROJECT SITES	NO. OF SEEDLINGS OUTPLANTED	AREA COVERED (hectares)
San Juan	1,356 native timber tree seedlings	2.17
Calabanog	1,280 native timber tree seedlings	2.05
Idio	2,924 native timber tree seedlings	4.68
Alojipan	5 native timber tree seedlings	-
Castillo	4,945 native timber tree seedlings	7.91
TOTAL	**10,531** native timber tree seedlings	**16.81**

Note: All seedlings in five nurseries were to be outplanted in Dec 06.

1.2.2 Report on PESCP's CoFoPa Project Implementation: Livelihood and Training Component

By

Henry V. Dungganon, Upland Agriculturist

1.2.2.1 Livelihood Component

PESCP has been actively implementing livelihood projects on its areas of operation in the NW Panay Peninsula (NWPP) and in part of or within the Central Panay Mountain Range (CPMR). Too many families are relying on forest resources as a source of their income. Accordingly livelihood support is one of the project components in the implementation of the Community-based Maintenance and Restoration of Forest in CPMR and Protected Area of NW Panay (CoFoPa) Project, that was funded by the EU-UNDP 'Small Grants Programme for Operations to Promote Tropical Forests' (SGP PTF). It was implemented by the PESCP in partnership with the 25 Peso Multi Purpose Cooperative (TFPMPC).

The project started in March 2005 and was expected to end September 2006, but due to some unfavourable conditions, implementation was extended until December 2006.

The project sites or Counterpart Communities covered are located in four municipalities, namely, **1. San Juan/ San Roque, Libertad, Antique, 2. Calabanog/ Idiacacan, Pandan, Antique, 3. Idio, Sebaste, Antique, 4. Alojipan, Culasi, Antique**. PESCP prioritized the mentioned locations for the implementation of the CoFoPa Project, since many forest

dependent families can be ambraced, Local Government Units voiced their interest in supporting the project, and the communities themselves proved receptive.

PESCP selected forest dependents and the poorest among families in the community as participants or those who were willing to actively participate. Specifically, sub-projects comprised pig and chicken husbandry as follows.

The total number of families availing of project support were located as follows: **36 families** in Alojipan **18 families** in Idio, **19 families** in Calabanog/ Idiacacan, and **27 families** in San Juan/ San Roque. Some of these families are now enjoying the benefits/ income from the project, by selling their native pigs when fattened and chicken (fattened, and eggs). But there were also families who backed out from the project because, e. g. of an unfavourable location/ place for housing the animals, limited source of local feeds, and lack of sufficient time for taking care of the animals.

Pig breeding is part of a livelihood project, not only because the families involved derive an income from it but the source of stock (piglets) are a means to sustain native pig fattening. The participants involved are: **5 families** in San Juan/ San Roque, **3 families** in Calabanog/ Idiacacan, **2 families** in Idio, and **6 families** in Alojipan. These pig breeders have successfully produced piglets that they are selling to pig fatteners within the community.

In total**, 116 families** are directly benefiting from the livelihood project implemented by PESCP. Specifically, of 278 piglets, 552 chickens, 47 sows and 7 boars have been distributed (for details see **App. 6**).

1.2.2.2 Capability Training / Livelihood Component

Capability building/ training is also part of the CoFoPa Project implementation with its purpose of enhancement of knowledge, skills and positive attitude towards technological and organizational development easing project implementation.

The training/capability building entailed:

1. Launching of CoFoPa Project implementation
2. Nursery establishment and management
3. Sustainable agriculture and agroforestry
4. Native pig/ chicken raising
5. Project planning, implementing, monitoring and evaluation (PIME)
6. Business management and entrepreneurship
7. Updating on planning, implementing, monitoring and evaluation

8. Composting and organic fertilizer making (see picture)
9. Simple recording and bookkeeping

The targeted participants mostly attending the training were livelihood recipients, agroforestry adaptors, nursery caretakers, liaison officers and barangay officials.

1.2.2.3 Further Interventions and Activities

1. PESCP Staff attended a Sangguniang Bayan (LGU – Sebaste, Antique) meeting regarding GLENDALE MINING CORPORATION's mining applications in Sebaste and Pandan, held at the Municipal Hall, Sebaste, Antique. Mining applications are threatening the remnants of the remaining forest.

2. PESCP Staff attended meetings facilitated by the PROCESS Foundation (NGO in Antique) tackling mining issues, held at Sebaste, Antique.

3. PESCP Staff attended a FORUM on MINING, facilitated by the Alternative Law Group (NGO, Manila) and PROCESS Foundation (NGO, Antique), held at San Jose, Antique

1.2.3 Accomplishment Report: Culasi and Sebaste Clusters

By

Alexander Alabado, Wildlife Educator

Areas Covered: Culasi with Barangays Flores, Osorio and Alojipan
Sebaste with Barangay Alegre

Information Campaigning

PESCP is operating for already five years in the areas mentioned. For this length of time people in the communities have been aware of what the project is after, in regard of the protection of natural habitat as well as providing alternative livelihoods to lessen forest dependency. From LGUs down to the barangay level the livelihood initiatives of the project in support of the counterpart communities are deeply appreciated. Ever since PESCP established linkages and good relations with various government agencies the project is winning the sympathy and support for its ongoing information campaign from the churches, schools, and private persons, thus endearing them to the project's conservation agenda.

Here I update the reporting on intervention in four key sites/barangays, The community-based awareness campaign is taken care of by our Community Conservationists (CCs) assigned to each barangay, closely supervised by the educator and other support staff visiting the area. In this year, no incident of poaching, trapping of Spotted Deer and Warty Pig or other illegal activities has occurred. This is encouraging since in the area of Alojipan, Osorio and Flores farm lots have been attacked by Warty Pig, with inroads on the increase in number.

- Based on the reports of CCs assigned in Osorio and Alegre, the population of Spotted Deer has increased as inferred from the footprints of the deer that are found during the monthly monitoring in the forest and that undertaken while conducting the Dulungan protection program.

The following summarizes the community-based information activities in the area covered:

- Meeting with the barangay officials and 36 nest wardens of Brgy Alegre discussing their roles in the protection program for the Dulungan and other wild animals in the area. Siegfred Dias from the Katala Foundation stressed the importance of strengthening and empowering the nest wardens by making them Tanods (brgy police). – May 14, 2006
- Site visitation together with two personnel from the Protected Area and Wildlife Bureau, DENR, main office (Q. C.), and DENR regional office, Iloilo, in Brgy Alojipan. After looking at the livelihood project, a short consultation meeting was conducted with the barangay officials and other members of the community. – August 18, 2006.
- Integrated training serving composting in Brgy Alojipan. – September 9-10, 2006.
- Consultation meeting with brgy officials from Flores and other members of the community. Accordingly updates on livelihood, tree planting and other issues concerning biodiversity conservation were discussed. – September 27, 2006.

Livelihood Support Program: an Update

Barangay Flores
Out of four cattle given by PESCP, one died last year and the remaining three were taken care of by the recipients that were formerly hunters/poachers. One cow gave already birth and last month the calf was turned over to the Brgy Council with the mandate to make the prospective owner (former hunter, too) take care of the calf.

Barangay Alojipan
This was covered by the CoFoPa Project in which almost all households received a highly welcome livelihood project, namely native chicken, native pig fattening and breeding, and growing grafted fruit trees.

Barangay Alegre
Thirty six nest wardens of this barangay received an incentive of 500 P for every nest they guarded successfully additionally a seedling of hybrid Giant Bamboo. In this year, a total of 215 active Dulungan nest holes were found in the area (see chap. 1.3.2). The ensuing protection benefited also other wildlife in the area.

Through the help of Joemarie Lomugdang, nest warden, one remaining air gun in the barangay was surrendered in exchange for two sacks of rice. The air gun was delivered to the office by S. Dias, a visitor from Katala Foundation, Palawan.

Dulungan Nest Hole Protection

During this year's Dulungan breeding season, a total of 215 active active nest holes were identified by 28 nest wardens from Alegre, 1 from Brgy Abiera and 7 from Brgy Simbula,

Culasi. The nest holes of 8 more nest wardens from neighbouring barangays were included in the list for Alegre since their nests fell within that same area. All these active Writhed-bill nests had been protected by the nest wardens and through thorough monitoring of the CCs assigned to the area and committed barangay officials in there.

Two Writhed-bill nests were found to have successfully fledged in the Bayabas area of Mt Madja-as, Culasi. From 1998, these Dulungan nest holes were known as were additional ones also far away from Brgys Osorio and Alojipan that were not searched for because of threat from people being minuscule.

To insure that all the broods recorded had successfully fledged, the office conducted two major activities, the pre-assessment from May up to end of June and the post-assessment from mid August up to end of August '06. Due to the large number of nest holes under surveillance, the office deployed 10 staff, namely Forest Rangers (F. Antoy, R. Tenorio, E. Paulino Sr and Jr, R. Nepomuceno, E. Malabja, S. Arnaiz and J. Matinong.), Research Assistants (Gersom Operiano, Narciso Paulino, Richard Mangga), and two CCs (Joman Mangga, Bobbet Mangga), under the supervision of Arnold Demegillo and Thomas Kuenzel, Project Manager. A detailed account can be found in the report on the post-assessment drive in August 06 in chap**.** 1.3.2.with **App. 7.**

The pre- and post-assessment activities comprised four to five teams including the 36 nest wardens for six to eight days each. Indicators of fledging success used were the following: Feces and remnants of food on the ground under the nest, no sign of ladders, bolo marks, or climbing gear at the base of the nest tree and no cutting of nearby branches potentially useful for climbing the nest.

As the protection scheme continues, we can expect the number of nest holes to climb up to 300 in next year's breeding season in the area of Alegre alone.

Other Related Tasks and Accomplishments

- Being in charge of the repair, maintenance and registration of office vehicles and equipment.
- Being involved in the implementation of some CofoPa Project activities.

1.2.4 Accomplishment Report: Wildlife Conservation

By

Julius C. Venus, Wildlife Educator

Barangays covered: Aglonoc, Calinog, Iloilo
Nulwan, Tapaz, Capiz
Sitio Caningag/ Sitio Aytabag, Libacao, Aklan
Usman, Malinao, Aklan
Maria Christina, Madalag, Aklan
Yawan, Ibajay, Aklan
Maadios, Pandan, Antique

Introduction

Since the intervention of PESCP from 2001 until 2005 in the very remote areas of Libacao, Aklan and Tapaz, Capiz, convincingly positive and acceptable results can be observed. It has to be taken into consideration that poaching of wildlife and "kaingin" slash-and-burn farming still prevail as source of income in the primary forest. But gradually there are changes and hopeful signs indicating a growing willingness to protect species and the environment.

Before, the interventions were focused on Alegre, Sebaste and Antique for the main reason that this area serves as a center of protection of active Dulungan Hornbill nest holes. This year, the PESCP's office decided to expand the operation of the nest hole protection program to nearby barangays, as the office had received information that rampant poaching of Dulungans and illegal logging were happening in these new barangays (Maadios, Pandan, Antique, and Yawan, Ibajay, Aklan)**.**

Major Accomplishments

- ***Pre-assessment of Dulungan nest holes in the areas of Maadios and Yawan in June 2006.*** Before the pre-assessment, the office received information from reliable sources about poachers/hunters of Dulungans in the area. This became evident when the office held a meeting to gather data, where one poacher willingly admitted to the poaching of two active nest holes this year. Furthermore, a series of meetings were held to teach poachers/hunters the importance of the Dulungans and other wildlife species. Another aim of these meetings was to encourage them not to poach these birds and convince them to become involved in the protection program of the PESCP. At present there are 10 poachers actively involved in the program. It is therefore expected that by 2007, even more poachers will be won over to the said program as protectors. – A selection of the data on the post-assessment of active nest holes can be gleaned from **App. 8.**

- *Continuous interventions in Maria Christina, Madalag, Aklan have convinced more hunters/ poachers to participate in the protection and conservation program of the PESCP*. Evidence shows that there were five poachers/hunters all of whom participated last year, which certainly is an important progress. A total of 10 former poachers are now actively involved in the program.

- *Apprehension of 18 White-Eared Brown-Doves and two monkeys at San Roque, Libertad, Antique (March 2006)*
- *Apprehended one Tarictic Hornbill and one Brahminy Kite at Pandan, Antique (Aug 2006)*
- *Apprehended one Spotted Dove at Pandan, Antique (Sep 2006)*
- *Apprehended one chainsaw in Patria, Pandan, Antique*
- *Appointed as Wildlife Enforcement Officer of DENR (Jan 2006)*
- *Distributed 10 Giant Bamboos at Maria Christina: three at Maadios, seven at Yawan.*

1.3 Conservation Management

1.3.1 PESCP's Protection Program for the last substantial sized Population of the Dulungan Hornbill

Final Report** to the **North of England Zoological Society** and **Stiftung Artenschutz

(Aug 2005 – March 2006)

By

Alabado, A., Lestino, R., Venus, J., Elio, R., Kuenzel, T. and Curio**,** E.

The forest of the Central Panay Mountain Range (CPMR) is the last place where the Writhed-billed Hornbill or Dulungan (*Aceros waldeni*) – endemic in the Western Visayas, and probably the world's second most threatened hornbill species – has survived with a breeding population of a substantial size (whether its population size is still viable is yet another question). In 1996, PESCP started its program in the area of the 5 municipalities around the NW Panay Peninsula to protect the forest and its wildlife, and to help the people in upland Barangays to realise a precautionary, sustainable economic development, and until today extended this program into the CPMR being active now in 35 barangays and/or sitios of 12 municipalities in all 4 provinces (Antique, Aklan, Capiz, Iloilo) of Panay Island, Western Visayas.

Until the end of 2001 before PESCP started its protection Program for the Dulungans, the situation of the Dulungan population was described in the book "Threatened Bird of Asia" (2001) of BirdLife International as follows:
"This hornbill must now be regarded as one of the rarest and most precariously placed of all Philippine bird species, with remnant populations only on Panay (highest recent record: 25 – 30) and Negros (highest recent record: four). … The most recent estimate, based on extrapolation from fieldwork to all remaining forest areas on the Islands, is 60 – 80 pairs."

Therefore, *Aceros waldeni* is regarded as critically endangered by the IUCN.

A pre- (breeding) assessment executed by PESCP in 2001 revealed an annual minimum loss of at least 50 % of Dulungan broods due to poaching.

PESCP received the first funding for its Dulungan protection program in 2002 from the German journal "GEO" (20,000 US$), and the same amount in 2003 again from GEO.

In 2004 the funding came partly from the North of England Zoological Society (NEZS), and mainly from the Frankfurt Zoological Society (FZS, Germany), and in 2005 again partly from the NEZS and Stiftung Artenschutz (Niehoff Vaihinger), and collectively (near to 35,000 US$) from the two US-based organisations the National Geographic Conservation Trust and the Sea World and Busch Gardens. Also in 2005 the funding from the FZS has been the basic support for the work of PESCP.

For 2006 the funding again came partly from the NEZS and mainly from GEO, and the important basic funding again from the FZS.

From 2002, the first year of PESCP's program to protect the Dulungan in the wild, up to 2006, there has been a steady increase of the number of Dulungan nest holes known to and included in PESCP's protection program. The funds of the above mentioned sponsoring organisations enabled PESCP to protect

in 2002 a total of 31 nest holes
in 2003 a total of 64 nest holes
in 2004 a total of 115 nest holes
in 2005 a total of 349 nest holes
in 2006 a total of 502 nest holes

occupied by Dulungans.

This enormous increase of 528 % from the 80 pairs mentioned in the literature before PESCP started its intervention to the 502 occupies nest holes in 2006 can be credited to the highly effective nest protection scheme PESCP has applied since 2002, but it is – at least partly – also an indication that the formerly assessed population size of the Dulungan on Panay was a gross underestimate. Comparing the number of occupied nest holes known in 2005 and 2006 results still in an increase of 44 % by 2006.

The post-assessment data from 2006 are still being worked out (Alabado et al. in prep., chap. 1.3.2 and App. 7). Nevertheless, assuming conservatively a protection failure of 5 % (meaning 25 nest holes have been poached in spite of our protection effort), as it was done in the years before, and assuming further for the remaining 477 nest holes a 15 % loss of the whole clutch from natural causes (Kemp 1995, in "The hornbills", mentions 10 % for smaller savannah hornbill species) and finally assuming that from the remaining 405 nest holes at least 1 chick has fledged successfully, a total of 405 juvenile Dulungans have been strengthening the wild population in that area in 2006 (clutch size after Kemp can be assumed to be 2 for the genus *Aceros* though Kauth et al. [1998], J. Ornithol., found three young twice). Out of these 405 successfully fledged Dulungans another 75 % (given in Kemp for cooperatively breeding groups) might die due to natural mortality between fledging and maturity, which might be reached after 3 years (conservative estimate; see also Kemp 1995, in

"The hornbills"). Given these assumptions, out of our 502 active nest holes a total of only 101 (1 bird only from a total of 5 occupied nest holes) birds will reach adulthood.

Anyway, the substantial protection success (only an annual 0-5% of the nest holes poached during the last years) was only possible through the implementation of our double strategy scheme of community-based and "owner**"** (= hunter)-based nest hole protection¸ accordingly we made use of a protection-network existing of PESCP's conservation-concerned, community-based co-workers (6 Wildlife Educators, 17 Community Conservationists, 16 Forest Rangers, 132 nest hole "owners" [= former hunters, 14 Tanods = community police, + others]) on the one hand, and where on the other hand this network of conservation workers is supported/flanked by livelihoods planned and implemented together with the communities living in and around the forests harbouring the Dulungan.

Any livelihood given to one of the communities comes along with (1) a MOA between PESCP and the community where the tasks and responsibilities concerning the livelihood are stipulated, (2) a technical contract where the technical details including the cash flow are outlined, and (3) a Conservation Plan where the community/LGU is committing itself to conservation activities focussing on forest protection related to the protection of the Dulungan and other endangered wildlife in the area.

Our scheme of Dulungan protection in the forests of the CPMR has of course also its very substantial, positive effects on the protection of other wildlife especially on the only other hornbill species occurring on Panay, the Visayan Tarictic (*Penelopides panini panini*) being much less threatened than the Dulungan and occurring still in good numbers in both the forests of the NW Panay Peninsula and of the CPMR. But also the critically endangered Visayan Spotted Deer (*Cervus alfredi),* which has its probably last viable population in the forests of the CPMR enjoys protection through our activities focused on the Dulungan.

Believing that the total area in the CPMR suitable as breeding ground for the Dulungan might be at least 1.5-times the size of the area already covered by our protection program we estimate that the total breeding population of the Dulungan in the CPMR amounts to ca. 750 breeding pairs, which we still regard as a conservative estimate.

To secure what PESCP achieved during the last five years the Dulungan protection program must be continued. For this reason it is of great advantage that an evaluation report from Peter Widmann and Siegfred Diaz (Katala Foundation) has been presented timely helping PESCP to sociopolitically fine-tune the Dulungan protection scheme in this year.

Editor's note: The foregoing report comprises the important pre-assessment survey while the companion report below will include the post-(breeding) assessment of core areas of the CPMR as well. The data on the remaining nests are still being worked out as mentioned.

1.3.2 Dulungan Hornbill Post-Assessment Report, August 23-28, 2006

By

Alexander Alabado

Prior to the post- (breeding) assessment activity, the nest wardens meeting was conducted in Brgy Alegre August 18, 2006. The meeting was attended by 28 nest wardens, 3 barangay officials and two visitors from DENR (PAWB) main office and others from the regional office. During the consultation meeting, the nest wardens asked for visibility of their being mandated with the protection of the forest in their area of coverage. Livelihoods were also discussed but Anson M. Tagtag and his companion Medel Duerte (PAWB/ DENR) explained that the identification of a livelihood project should only be done after properly organizing the group and its nature suited to the need of the people in the barangay under scrutiny.

The Dulungan post-assessment activity was conducted August 23-28, 2006. Nest holes to be visited after end of fledging were selected at random. Four teams with at least five members conducted the post-assessment activity. From a total of 212 active and supposedly successful Dulungan nests 51 were selected in Alegre, part of Simbula and Abiera area: 10 nest holes in Camantra area, 11 in Tamarog area, 15 in Nimbong area and 15 in Catmon and Agpako area. The criteria applied were the same as in last year's post-assessment drive (for details see **App. 7**).

A day after the Dulungan validator group arrived in a barangay's monitoring area, a squad of 72 of the Phil. Army also arrived looking for a group of New Peoples Army (NPA) rebels allegedly roaming in the adjacent mountain area the barangay included. The army mistook the Dulungan validators for NPA people. Alleged traces had been footprints of combats, marks of hammocks left, buried empty cans. This misidentification was relayed by Padoy Mangga, a Barangay Tanod and CC, who met the army assets in Culasi. When I came back to Bacalan, Sebaste, I was instructed by CC Mangga to properly coordinate with the army that had taken me for a commander of the NPA. I went immediately to the intelligence group of the army in Culasi and clarified the issue by virtue of proper documents and the project office further set things straight with the Head Office of the Phil. Army in Dingle and Miag-ao, Iloilo, and in Libas, Aklan.

After the problem was resolved, the army made the following suggestions.

- The group of validators must have a proper identity when being in the forest, best done by wearing a unique identification dress mark.
- The group should not wear combat boots, fatigue shirts, pants and backpacks to potentially misguiding the military. Next year, the group will wear properly designed T-shirts, given the availability of funds.

- Coordinate with both the nearest detachment of the Phil. Army and Police Station before going to the forest. Prior to a monitoring the relevant information will also be relayed by PESCP's office to the intelligence assets that in turn would be feeding the information into the battalion of the Phil. Army covering the area under scrutiny. Time must show whether this relay chain will work.

1.3.3 Wildlife Rehabilitation Accomplishment Report

By

Enrique D. Sanchez Jr., DVM
Wildlife Veterinarian, PESCP

With contributions from: N. Bagac, M. Melchor, E. Geronimo, J. Jamangal, B. Tacud and S. Hembra

General

Since the project started accepting native animals rehabilitation has become a routine for the past six years. A noteworthy 'first' in the past year was the admission of a Warty Pig (see below), an endemite of some West Visayan Islands, to one of the reha facilities. Donated for rehabilitation it had to be treated because of wounds inflicted by a snare.

The diet of various parrot species was revised. Instead of using commercially prepared powdered fruit juice natural citrus fruits, e.g. oranges (pers. comm. E. Curio). Especially a Blue-naped Parrot accidentally coming from Luzon did then very well. Similarly the diet for pigeons and doves now become a mix of commercially prepared pigeon pellets and freshly chopped fruits. These birds comprised the largest number of animals received and slated for release back into the wild.

Provisional cages for birds in Mag-aba have now been replaced with ones with more durable galvanized iron frames and welded wire mesh. Sadly, the cost of construction and materials exceeded the canvas by three times, thus straining the budget unexpectedly.

When released Tarictic Hornbills used to roost anomalously on low branches. Apparently this made them vulnerable to mammalian predators (three casualties). To make them select perches for roosting clear from the ground, pre-release treatment was improved. One cage in the Sibaliw forest facility was extended to 5 m height thus allowing the birds to roost on perches well above ground to protect them from predators. This cage will become the gateway for all Tarictics eventually to be released.

Numbers of visitors of the Mag-aba reha facility comprised college students from universities on Panay and professionals (Public School teachers) (See below list of visitors to Mag-aba).

Releases of and post-release monitoring of hornbills saw a drawback when research assistant S. Hembra left the project for family reasons. Fortunately he was able to train his replacement staff at the research station.

For a complete listing of the animals in the custody of the project rescue and reha facilities see **App. 9**.

Housing and Equipment

Three maintenance cages at Mag-aba were erected from metal piping as the main construction frame, with size of 3 m width, 12 m length and 2.4 m height. Welded wire mesh

was used to enclose them. The foundation was lined with concrete and a two tire layer of concrete hollow blocks accommodating the welded frame. One narrow end of the cages is interconnected to the teepee shelter appr. 2.4 m high, as used by falconers. – The horrendous typhoon of 13 Dec wrought havoc to the smaller aviaries in Bulanao, killing two Tarictics there, but more importantly, it destroyed the very big flight training cage for raptors in Mag-aba in spite of its steel cable anchoring. Thankfully, the Bird Protection Committee (Prof. Dr. E. Schneider) pledged emergency funding for re-erection.

For improvements of other housing see above 'General'.

With the advent of bird flu scare in Southeast Asia, a special mask FFP 2/V Half Mask (Mandil) was received by the project through Prof. Curio, protecting against harmful particles (germs). Nearly than half of the masks were provided to the caretakers at both Sibaliw and Bulanao rescue facilities to cope with a potential emergency outbreak of the disease.

Diet Formulas

For Raptors (*Accipter virgatus*)

Fed with beef or heart meat of cattle cut in strips and approximately 100 grams cut beef or heart meat laced with pigeon feathers implanted to the meat to simulate a small bird to be plucked.

For Parrots

Blue-naped Parrot and Hanging Parrot (Colasisi, *Loriculus philippensis*), Racquet-tailed Parrot (*Prioniturus discurus*): Fed with a maintenance diet of bananas, oranges, papayas, soaked oatmeal mixed with cooked rice.

For Visayan Warty Pig (*Sus cebifrons*, male left, photo E. C.)

Fed with root crops and tubers such as gabi, taro, kamote (sweet potato) and yam (ubi). Sweet potatoes comprised the staple diet together with arrow root tubers, with recently cooked rice added once a day. A wild Warty Pig received its food in late afternoon since it did not leave its shelter before night time and again early in the morning before sunrise.

For Philippine Nightjar (*Caprimulgus manillensis*)

A dehydrated, starved and injured bird that had bumped on the wind shield of a car was given Bioserin and dextrolyte, a rehydrating solution, administered via a cannula (a stomach tube), in addition to insects like crickets, praying mantises and a variety of grasshoppers and cut-up beef or heart meat when insects were scarce. On top of that, the bird received vitamins (Vionate) and mineral mixtures sprinkled on the food.

Accomplished Tasks

This year saw a variety of animal releases, i. e. of Tarictics at Sibaliw Station, leopard cats, various species of owl snake, monitor lizard, turtle, dove and pigeon. Animals were admitted to PESCP's Wildlife Rehabilitation Program, mainly by our conservation partners, the DENR and DENR-CENR Offices in Kalibo, Aklan, and Culasi, Antique.

Some animals had to be classified as unsuitable for release. Accordingly a Philippine Macaque, a White-eared Brown-Dove and Crested Serpent-Eagles were turned over to PAWD Region VI, Iloilo City. Through the efforts of Amadona Rana (PAWCZMS, CENRO Culasi) and CENR Officer Emmanuel Vengano transport permits were issued. How decisions on the destination of wildlife admitted to the project rescue facilities can be arrived in rational terms can be gleaned from **App. 10**.

Cages were in part redesigned, renovated and improved at Mag-aba and Sibaliw reha facilities (see also above 'General').

Other Assignments

My work as a Veterinary Consultant for PESCP's EU-UNDP funded reforestation and livelihood program ended September 2006 but I continued working in an extension project counterparting the baseline CoFoPa facilitated by PESCP's office.

Seminars and Conferences attended

1. Veterinary Practioners Association of the Philippines (VPAP) 34th Annual Scientific Conference held at Wack wack Golf and Country Club, Mandaluyomg City, June 01-02, 2006. Theme: Setting proficiencies through Continuing Education. Topics presented:
    1. Essential Features of Veterinary Clinical Trials
    2. The role of Desiccants in Pig production
    3. Planning of the reintroduction of the Red-vented Cockatoo
    4. *Eschericha coli* 0157: A veterinary Public Health Concern
    5. Update on Avian Influenza
    6. Bird Flu Preparedness Program
    7. National Meat Inspection Service
    8. International Inter-Agency Cooperation to Monitor Bird Flu in Asia, convened by a. Food Agriculture Organization, b. United States Department of Agriculture

2. Third Philippine Zookeeper Workshop, June 18-22, 2006 at Subic Bay, Free Port Zone, Zambales
   Theme: Behavioural Management of Captive Wild Animals. Topics presented:
   1. Behavioural management – how to maximize the benefits of training.
   2. Husbandry and socialization training with Sea Lion training terms and techniques.
   3. Designing an enrichment plan and collecting data.
   4. Macaque training demonstration.
   5. Planning and implementing training – shaping plans and in progress videos.
   6. Raptor training demonstration at rescue center.
   7. Whale and dolphin training and husbandry demonstration, tour of laboratory and fish room.
   8. Dog training demonstration at rescue center.
   9. Civet training demonstration
   10. Sea Lion hands on training opportunity at Sea Lion training center.
   11. Understanding cetacean stranding
   12. Emergency stranding response – first responder
   13. Standing response and transport exercise at encounter cove
   14. Sea Lion and whale shows, field trip to Zoobic Safari.

The workshop sponsored 2 staff from PESCP reha facilities, with me and Sibaliw reha caretaker Junmar Jamangal attending. We presented a paper about the project's, more specifically Junmar's, soft releases of Tarictic Hornbills that is going to be published by the Zookeeper Association with some delay, probably this year.

Together with Wildlife Enforcement Officer (WEO) Julius Venus I attended a training on an Avian Flu Preparedness Program sponsored by the DENR-PENRO San Jose and -CENRO Culasi on November 28, 2006.

Similarly, I attended a 'Capability Orientation/Training on Avian Flu', held at EBJ – UDP Building, Binirayan Hills, San Jose, Antique. Topics:

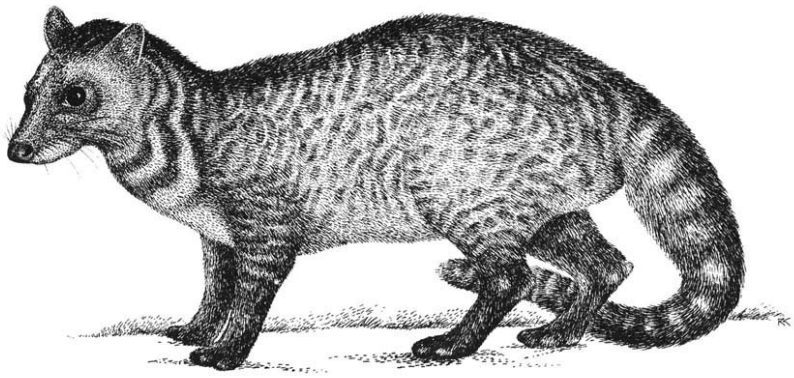
1. Overview of Avian Flu
2. Avian Flu preparedness
3. Treatment regimen, patient management during anesthesia, handling and restraint during medical procedures and surgery

<u>Recommendations arising:</u>

For Philippine Macaque (*Macaca fascicularis*)

Immature animals can be restrained during surgery at a dose of 1 mg of ketamine HCl per kg body weight, anesthesia could last at 15-20 min. For adults a dose of 11 mg/kg for sedation/tranquilization and 22 mg/kg that would last for 20 or more min is appropriate. Food and water are withdrawn 3-6 hours before anesthesia and surgery. To limit the amount of anesthetic and hasten recovery time, a pre- medication is applied using 1 mg/kg of chlorpromazine HCl.

For Civet Cat (*Viverra,* see picture*; Paradoxurus*)



Tangalung. Illustration by R. R. Capalad, in Rabor 1977:
Philippine Birds & Mammals, University of the Philippines

Sick and injured animals are given Enroflaxin (Colmyc E) against secondary bacterial infection. Minor injuries, are sprayed with Gusanex while larger injuries need medical intervention and repair. The animal is anesthetized with ketamine HCl at 11-22 mg/kg body weight. Prior to anesthesia a pre- anesthetic is applied at 1 mg/kg body weight of Chlorpromazine HCl. Electrolytes (Dextrolyte) are provided before and after recovery from the effects of anesthesia. All animals are usually fasted before longer lasting surgical procedures except in case of an emergency procedure.

For Sick Birds

of unknown etiology or cause, the growth of bacterial infection need be arrested. Enroflaxin (Colmyc E) to be given I.M. or subcutaneously diluted with distilled water or electrolyte fluids at a 1:1 dilution rate to minimize irritation of tissue that might lead to tissue necroses, at a rate of 5-7 days.

Special cases may comprise *Klebsiella ozonae* infections that cause recognizable signs or symptoms of rapid deep breathing, a respiratory sound such as “harrrk”hark”harrrrk “ , e.g. in Tarictics, coupled to rapid extension of the head and neck when the bird inspires.

Differential diagnosis or diseases with similar signs and symptoms must overcome confusion with aspergillosis (*Aspergillum* spp.) infection. Symptoms of deep rapid breathing and odd sounds like “hark hark” may be noticed and may last from 5-7 days until the birds die. With a *Klebsiella* infection the bird responds well to antibacterial agents (Tylosin, Erythromycin, Enroflaxin) within 6-12 hours after treatment either via I.M. injection or oral administration.
Aspergillosis symptoms disappear after long periods of treatment with an anti-fungal after 2-3 weeks.

Handling a male Tarictic prior to release in Station Sibaliw. From left to right: E. Geronimo, S. Hembra, B. Tacud. © D. Schmidt

In Racquet-tail Parrots no definite symptoms of an infection have been observed. Sometimes the birds die within an hour with very few prior signs like rejection of food or staying on only one end of the perch. A mixed infection needs bacterial isolation and identification.

Supportive therapy for Tarictics includes Dextrolyte (Electrolyte) given orally via a stomach tube. Bioserin as sole source of food and to stimulate the bird's immune response may be applied judiciously. Treatment with antibiotics may last 5-7 days or more (7-14 days). Three to five days of intramuscular injection can be tried, the remaining days per os, i. e. via the food. After the anti-bacterial treatment, the normal gut micro-flora to be restored by giving Benebac powder containing beneficial bacteria.

Visitors at Mag-aba Rescue Facility

January 11, 2006	Linda Ornilla, member Validation Team NAPOLCOM, Senior Police Director Zonida F. Brosas, Asst. Secretary; Asst. Secretary National Police Commission - Head Validation Team; Mayor Plaridel Sanchez VI - Municipality of Pandan, Antique; Team comprising Provincial and Regional Escort Group
February 23, 2006	Aklan State University, College of Forestry students and professors
February 25, 2006	20 students of Environmental Management class. Headed by Prof. Rex Sadaba of University of Phils., Visayas
March – April 2006	Manuela Esslinger, tropical biology practical student (Germany)
March 11, 2006	40 students – Biology Class, headed by Prof. Rex Sadaba, University of Phils., Visayas
April 7, 2006	75 Public School teachers, Iloilo Central School. Headed by Prof. Rex Sadaba of the U.P Phils., Visayas
May 5, 2006	Central Philippine University (CPU), Iloilo, headed by Prof. Ernesto Elefan. Students: Rainee Tugad, Ruth S. Gabilo, Christyll Joy B. Paragoya, Rudolf John Dela Cruz, Daisy Laine Estanila
September 15, 2006	Students of Environmental Management class, Central Phil. University (CPU), Iloilo, headed by Prof. Ernesto Elefan. Students: Ryan Blaise Posa, Bryan Tabo, Dennis Alla, Jarold Guillermo, Joeben Villalobos, Gideon Pena, Fransie Ortega, BJ Earl G. Montes
July-August, 2006	David Bellhoff, tropical biology practical student (Germany)

1.4 Conservation Research

1.4.1 Notes on the Herpetofauna of NW Panay: A Progress Report

By

Maren Gaulke and Arnold D. Demegillo

This year's herpetofaunal research in NW Panay took place from February to April, and during November. While several excursions were made during this time (to some of the forested areas of the Mun. of Culasi, Nabas, Pandan, and Sebaste), the main emphasis was given to the organisation (first trip from Feb. to April) and a first status survey (November) of a newly planned and incipient project on the Panay Monitor Lizard, *Varanus mabitang*. Besides, the authors went on a herpetological field trip to Mindanao (Zamboanga Sibugay, Misamis Occidental) and attended the WCSP Meeting in Puerto Princesa in April.

The herpetofaunal investigations in NW-Panay resulted in one further addition to the herpetofauna of Panay: the big ranid frog *Hoplobatrachus rugulosus* was detected in the surroundings of Brgy. Alegre, Mun. Sebaste. This Asian frog most probably is a more recent invader of the Philippines, however, due to a lack of older data, this cannot assured. Previously not being known from any island of the Western Visayas its occurrence on Panay shows that this lowland dwelling frog is still in the state of dispersal. The record of this frog, together with last year's new distributional record of the small colubrid snake *Oxyrhabdium leporinum visayanum* was published (Gaulke & Operiano 2006a, b, **App. 11**).

A very rare observation on an adult male Sail-fin Lizard, *Hydrosaurus pustulatus* resulted in another short note (Gaulke & Demegillo 2006, App**.** 11): The specimen had a forked tail tip, showing that after the original tail tip broke (but was not lost), another tail tip started to grow from the open wound, while at the same time the original tip started to grow again. The regeneration (with forked tails occurring as a relatively rare side effect) is a well known phenomenon in lizard families such as gekkonids and scincids, but so far only few documented observations exist on tail regeneration in agamids. This is the second case of a forked tail being reported (and for the first time illustrated) for a member of the agamid genus *Hydrosaurus*. Whether the bright yellow colouration of the adult male Sail-fin Lizards on Panay is confined to this island, as our preliminary investigations indicate, remains to be verified.

In last year's (12^{th}) annual report, we made already mention of a new gecko species being discovered in NW Panay. In the meantime the description was published, together with a German gecko specialist and two American colleagues, who happened to discover this species more or less simultaneously at another locality on NW Panay (Roesler et al. 2006, **App. 12**). This year, the authors were able to find yet another location of *Gekko ernstkelleri*, at the cave entrance of a cave in the Mun. of Nabas, also on the NW Panay Peninsula. So far, no population of this gecko has been found on the core Panay 'mainland'. Ongoing studies of various populations include observations of egg guarding behaviour.

As mentioned in last year's annual report, a follow-up telemetry project in the field on *V. mabitang* was in preparation; the equipment (receiver, transmitter, Yagi-antenna) was provided end of 2005 by the GeoBio Center, LMU Munich. First steps to actively start this

new project was a training in telemetry of three of the former BIOPAT project members, A. D., G. Operiano, and N. Paulino, conducted at the Sibaliw Research Station by S. Hembra. In February '06, the telemetry equipment arrived, and yet another training session was conducted by M. G. In the meantime a project proposal had been submitted, and we very gratefully acknowledge that BIOPAT e.V. of it for at least two years, so that the actual project could start in August 2006. The project members are: M. G (project head), A. D. (project manager), G. Operiano, and N. Paulino (field research assistants).

Up to now, three *Varanus mabitang* could be fitted with transmitters, and we are glad to say that the radio-tagging technique seems to work very efficiently, without hindering these mainly arboreal lizards in their climbing performance. A first check-up (recapture) of the first tagged Mabitang showed that the fitting of the transmitter was still neat and safe after around three months, and the remarkable gain in weight and length of this lizard during these three months suggests that no hindrance of its normal life habits has taken place.

Likewise, the location of the tagged Mabitangs by the two newly trained research assistants is very successful up to now, in spite of the extremely difficult terrain and unfavourable weather conditions at the time. Many valuable data were collected in the meantime, and we are optimistic that by the end of this project, our understanding of the biology and needs of this rare and highly endangered animal will be enhanced immensely. Hopefully, up to the beginning of 2007, our goal of tagging six Mabitangs with transmitters will be reached. Beside of radio-tagging, all caught Mabitangs are being permanently marked with transponders, as during the fore-runner project. While performing the telemetric study, some other activities will be conducted. One is the cooperation with Melba Ragaas, Professor of Forestry at Aklan State University. At irregular time intervals interested students of her classes will accompany the BIOPAT team during its field work to learn various conservation oriented field techniques.

Another cooperation involves Cynthia Dolino, a biologist from Dumaguete City, Negros Oriental. She will be conducting a survey on amphibians (including sound recording) of the research area, because we feel sure that the amphibian fauna of this place is not yet fully known. A first short census took place end of 2006, another, more extended one, will be mounted in 2007.

The most interesting result of the field excursion to western Mindanao was the discovery of a huge population of *Ansonia mcgregori*, a rare and little known stream toad endemic to Mindanao. Interesting behavioural observations were made, and to our amazement we realized that these small toads are extremely variable in their colouration, some of them with a rather striking yellow and green colour pattern. In the few published data and pictures (showing rather dull, brownish to grayish toads), no mention is made of this colour variation. Actually we are not completely sure whether the visited population really belongs to this species, however, since the taxonomy of the Philippine members of *Ansonia* is unclear at present, we don't want to mess it up further by introducing yet another perhaps questionable taxon. Nevertheless, we hope we can continue our herpetological investigations in this area by next year, to gather more information.

During the WCSP Meeting in Puerto Princesa, from April 5 to April 8 2006, we displayed our Mabitang posters, and distributed copies to interested participants.

Literature

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Gaulke, M., & G. Operiano (2006b): *Oxyrhabdium leporinum visayanum* – Gebänderte Philippinische Wühlschlange. [Banded Philippine Burrowing Snake]. – Sauria, **28**: 51-52.

Gaulke, M., & A. D. Demegillo (2006): Gabelschwanz bei einer Philippinischen Segelechse (*Hydrosaurus pustulatus*) [Eschscholz, 1829]. - A forked tail in a Philippine Sail-Fin Lizard (*Hydrosaurus pustulatus*) [Eschscholz, 1829]. – Sauria, **28**: 4.

Rösler, H., C. D. Siler, R. M. Brown, A. Demegillo & M. Gaulke (2006): *Gekko ernstkelleri* sp. nov. – a new gekkonid lizard from Panay Island, Philippines. – Salamandra, **42**: 193-206.

1.4.2 The Diet of the Marine Toad ('Hawaiian Frog', *Bufo marinus*), a destructive Invasor

Being an alien species the Marine Toad was first introduced to the Philippines in Negros in 1932 to fight pest insects in sugar cane plantations. Since then it has invaded many islands of the country. With a body mass of up to 600 g this invasor became a pest by itself in many countries wringing havoc to the indigenous soil fauna. Its success is largely due to the highly toxic secretion of the parotid glands as a means of defence {Covacevich & Archer 1975, Memoirs Queensland Mus., 17: 305-310) }, a similar, even aggressive defence of its eggs and larvae, and a catholic diet. Furthermore, the toad can even track down prey frogs by locating their calls (Jaeger 1976, Copeia 1976: 833-834). Since nothing is known about the impact of this invasor on the indigenous fauna in the Philippines **Manuela Esslinger** had a longer look at its diet by way of stomach flushing and by some feeding experiments in captivity.

She collected the toads a few hours after their onset of feeding after dusk (22.30 pm to 1.30 am). All collecting was done in two areas, one in Mag-aba, Pandan Municipality, on and around PESCP's coastal rescue facility (pasture, brushland), the other in secondary forest along a nearby creek at the same elevation. Collecting of 49 toads yielded merely animals of up to 15 cm body length. As expected the toads proved to be generalist foragers that feed on a large number of arthropod groups with termites topping the list (62.4%), followed by ants (25.3%) and several other insect groups in smaller proportions. Only toads of the forest area contained also remains of vertebrates, namely bones of frogs and possibly a small mammal. The diversity of the prey assemblages found, as measured by the Shannon-Wiener-Index of information content H_s [2] is hardly different among the two habitats sampled:

H_s = 0.146 in the open area and
H_s = 0.154 in the secondary forest.

In feeding experiments with three captive toads that could feed on an *ad libitum* diet of ants (Formicidae), members of four insect taxa of up to 6 cm body length and spiders of up to 4 cm body length including the appendages were taken within 2 hrs. However, slugs

[2] $H_s = - \sum p_i * \log p_i$ where p_i is the relative proportion of a species i in a sample of S species.

(Stylommatophora, Arionidae) were rejected on visual inspection alone though one of body length 4-5 cm had been found in one individual.

In a follow-up study that focused on the larger individuals of the Marine Toad that for some unknown reason are living inland and higher up, attaining a body mass of from 250 g up to 600 g (Manuela's animals may have weighed up to 150 g), **David Bellhoff** continued the stomach analysis from Aug to Dec 06. Whilst the data from 24 animals have not yet been fully worked out a number of surprising finds surfaced that changed the picture in terms of species diversity of prey drastically. New taxa such as whip-scorpions (Uropygi), whip-spiders (Amblypygi), scorpions (Scorpiones), harvestmen (= daddy-long-legs, Opiliones, a short-legged species of this order), millipedes (Diplopoda), and other more common arthropod taxa were found, on average of a larger body size than the prey extracted from the smaller toads earlier that year. Adding to our surprise, these prey items had never been seen before on the forest floor in the night. Similarly, despite intense night searches by three men in the area of capture of the toads the whip-scorpions, the particular whip-spider and one of three species of scorpion could not be found alive. (A more detailed identification has to wait for an amendment of PESCP's collecting permit presently not covering dead invertebrates.) It goes without saying that these latter prey animal discoveries would substantially increase the Shannon-Wiener Index of species diversity in forest habitat.

In conclusion: The analysis of the diet of the Marine Toad reveals that this invasor forages on an enormous array of taxa whose conservation status remains largely unknown at present. Future investigation must show whether the impact is threatening certain indigenous species of the soil fauna, why growth in coastal areas remains constrained, and how the invasor being a pest could be possibly controlled. An assessment of the impact mentioned will be a tough going since many of the prey species eaten have not been found alive nor have they been encountered in pitfalls in either primary or secondary forest (see 12th Report, 2006).

1.4.3 Follow-up Work with Hornbills

1.4.3.1 Breeding Biology of the Dulungan and the Tarictic

Over the years, project members took a chance to systematically observe the events around nest holes of both hornbill species. The data for two broods of each species had been summarized by the Ed. (Curio 2006, **App. 13**). The abstract of that overview gives an idea of its contents as follows:

Notes on the reproductive biology of two endangered Philippine hornbills

Abstract

In a comparison of two West Visayan syntopic species of hornbills on the same Philippine island of Panay numerous similarities and differences of the breeding biology with an emphasis on the food ecology are revealed. For want of comparable data for other Philippine hornbill taxa a wider comparative perspective remains a challenge.

Pair density of the endangered Visayan Tarictic (*Penelopides panini panini*) is about 10 times that of the critically endangered Writhed-billed Hornbill (*Aceros waldeni*). Both competition for food and for nest holes cannot be ruled out to underlie this difference. The greater proportion of animal food in the breeding season diet of Tarictics is likely due to a greater need for animal protein rather than to constraints on hunting in the Writhed-bill. The average feeding rate, the feeding of one food item in runs, the withholding of food around fledging, and a morning peak in feeding are shared characteristics. At least Tarictics display a morning peak for feeding certain fruit much sought after, yet not for animal prey. This is regarded as the outcome of competition with

other frugivores, the mutual hostility between both species, as that over food and/or nest holes. Feeding rate in the Tarictic increases upon hatching while the number of items per visit stays constant.
Some behavioural peculiarities of the Tarictic (chorusing, looking after injured conspecifics) are functionally not yet understood.

In a first assessment in the palaeotropics, while using the same site, diet overlap between the Tarictic and seven species of frugivorous fruit bats was found to be rather low (0.084 - ≤ 18.9, as measured by Sörensen's similarity index), and thus comparable to a bird-bat community in the neotropics.
As a by-product of the present study, a number of mistakes of the physical description of both species in the literature are corrected. Some Tarictic individuals stain the white portion of their tails with preen-gland oils while others do not.

For a discussion of the results the reader is referred to the paper itself featuring here as App. 13**.**

In addition, some observations on the hornbills and their breeding behaviour in captivity have been detailed in chap. 1.5.2.

1.4.3.2 Telemetry Study of Tarictics – a Progress Report

Releases of Tarictics rehabilitated by PESCP back into the wild have all the time capitalized on radio telemetry. Aiming at an assessment of survival upon release the study aimed at the feasibility of reha and release as a valid technique for strengthening the wild populations. The last extensive account appeared in the 11th report (2005) so that here only a short review of the results is felt to be in place (Hembra et al. 2006, **App. 14).** The insight gained from this exercise will be utilized to release the first Dulungans from the reha facility in Station Sibaliw in 2007.

1.5 Basic Research

1.5.1 A Follow-up Study of a predatory Bug (Reduviidae)

In the 11th Report (2005) I reported on an incipient study of a predatory bug (*Acanthaspis bellulus*, Reduviidae) by Isabell Frank. This has been taken further by **Bettina Vorsprach** who focused in the dry season (26 Feb – 18 May 06) on the homing behaviour of the larvae, their prey capture and their density-regulation by prey density.

To begin with she found that *A. bellulus* had changed its colouration. While before the imago had a red and black aposematic colour pattern this proved now replaced with an inconspicuous, almost camouflaging pattern of brown and black. The original red and black form could no longer be found anywhere. A further complication was that there appeared to what is a second species that was preliminarily identified by Dr. Decker (Museum für Naturkunde, Berlin) as *Acanthaspis avarus*. It differs from *A. bellulus* by its colour pattern and its body shape. Moreover, it seems to prefer another micro-habitat, i. e. the concrete shelter of the project's generator whilst *bellulu*s prefers to live on trees, close to the Station preferably a tall Tol-ay tree, but also under the roof. Here *bellulus* lies in ambush alongside the trails of a black species of ant that is commuting between the foliage and its nest underground. When this trail was in full swing up to 80 larvae and a few imagos of *bellulus* exploited this rich source of prey. When a few weeks later the ants had retreated to another locale numbers of *bellulus* fell to 10 animals on the Tol-ay. Hence, the density of the bug was

clearly regulated by the density of its main prey. In feeding experiments this ant was by far preferred to like-sized termites.

As described previously the bug larvae of all stages carry a camouflaging backpack composed of sucked-out ants, debris and bits of earth kept in place by silken threads and tiny hairs on the body surface. The concealing function of the backpack is enhanced by a tremble-style walking pattern resembling a piece of dry plant moving in a draught of air. The function of the backpack could not be unravelled in the wild when larvae were deprived of it by the experimenter. The treated larvae retreated into their night time dens, holes in the Tol-ay, and replaced the removed backpack as quickly as possible. In doing so they stole material from companions roosting or resting in the same hole. Yet in experiments with captive *Acanthaspis* sp. larvae in Ivory Coast (W Africa) Brandt & Mahsberg (2002, Anim. Behav. 63: 277-284) had found that the backpack protects its owner by virtue of its camouflage or by being left to the attacker like a lizard's tail (functional autotomy) against various predators. This highlights the problem of why the imago can do without a backpack and without the associated tremble-style walking of the larva (see above).

At night time the bugs retreat into holes of their home range, often over many meters down the tree where they had lain in ambush in the day. Do the bugs have some map-like knowledge of their home range? In a pilot experiment Frank had translocated from the generator house to the Tol-ay tree a number of bugs that she had released at the base of the Tol-ay after dusk. As a control she had removed the bugs whose home was the Tol-ay from their roost holes and had released them at the same place as the experimentals. It turned out that the displaced animals were disoriented and dispersed in many directions instead of walking up to the roost holes as done by the controls. Since the generator-based bugs may well be another species (see above) the experiment needed to be repeated with genuine conspecifics. These were collected from the Station (n = 8), a few meters away from the Tol-ay to serve as experimentals in 2006. When the experimental animals (n = 6) from the tree were released at the tree base as in 2004, they moved up their home tree to roost in the holes from which they had been taken minutes before. Actually they made a detour by turning away from the experimenter and hiding behind the tree while homing to their roost. In contrast, the controls (n = 8) scattered or stayed at the release site in spite of heavy rains. One control larva that had by chance entered a roost hole up in the tree remembered the roost: When, after a few days of residence in its new home, being displaced several times by the experimenter to the tree base during the next nights it headed each time immediately to 'its' roost. These findings demonstrate that larvae form sort of a cognitive 'map' that helps them orienting in their home range. This 'map' reminds one of the well-known spatial orientation of bees, ants and some non-social insects such as earwig (Forficulidae) mothers when provisioning their brood with food. This finding raises many questions as to the orientation mechanisms involved and their relationship to the well-researched homing mechanisms of the social insects.

One final observation on killing behaviour is worth noting. One larva of body length 8 mm had killed by the usual stabbing with its proboscis (= piercing/ sucking mouth parts) a younger larva which, however, it did not consume. Instead it added the dead victim to its backpack. Killing of another animal without consuming it is rare among predators. The case reminds me of some of the big cats in Africa that kill but do not eat other species of their tribe, thereby probably removing from their environs unwelcome competitors (Curio 1976, The ethology of predation. Springer). The bug killer mentioned enjoyed an additional advantage in complementing its backpack.

1.5.2 Ornithological Observations

Several observations of note were made on new distribution, breeding, roosting, longevity, bird/ spider interaction, and a baffling, new trick of birds flying through forest.

New distributional records

Steere's Honeybuzzard *Pernis (celebensis) steerei* seen on Panay during an advertisement flight first described for this species near Mt Banderahan, NW Panay Peninsula, also indicating breeding in the dry season (Gewers et al. 2006, **App. 15).** This finding of a **new distributional record** for the island was sadly confirmed by a subadult bird shot dead on a rice paddy in Brgy. Cubay, Libertad in 2006 (pictures taken by Ed.).

Philippine Dwarf–kingfisher *Ceyx melanurus* freed by Benjamin 'Jun' Tacud (PESCP Field Research Assistant) from a spider's web**,** near Libacao, Aklan, around 1980. Because this happened at low elevation the spider was probably *Argiope* sp.

Breeding

Red Junglefowl *Gallus gallus*: A female found breeding at 2.5 m above ground in epiphytic Bear-paw's Fern *Aglaomorpha meyeniana* beside Bulanao Trail, 150 m N of Station, 5 eggs, 28 Feb 06. Deserted, likely because of frequent use of trail. The second nest record for this fern species above ground (see 12th Report, 2006), contrasting with the account in Kennedy et al. (2000, A guide to the birds of the Philippines. OUP) according to whom the nest is placed under cover on the ground in a shallow dug hollow though Panay Island is not specifically mentioned. The season given by Kennedy et al. encompasses both these nest records.

Colasisi, Philippine Hanging Parrot *Loriculus philippensis*: First nest and breeding record in the Phil's.: 4 eggs, 8 days later 2 hatched, in hollow tree stump 2.6 m above ground, depth of hole 1.47 m, diameter 7-9 cm, in primary forest, 485 m asl., 12 Jul 05, 4 eggs, measured and described by S. Hembra & J. Jamangal, found by these staff and F. Geronimo, location of nest as in 2005, 2 nestlings, 28 Feb. 06; there had been four in 05, nest lined with green, partly shredded lanceolate leaves (8 x 52 mm), some dry, of unidentified tree(s). Same nest hole occupied with 2 eggs from Dec 05 till Feb 06 and again from Mar to May 06. Since probably the same pair was involved there must be more than one brood per year, given that the first mentioned had been successful. The short interval between the two broods in 06 could point to re-laying after brood loss. The date of breeding is compatible with the observation of enlarged gonads in Apr and May (Kennedy et al. 2000, l. c.).

Dulungan, Writhed-billed Hornbill *Aceros waldeni* 7 year old pair bred in one of the Station's aviaries, producing two chicks, 28 Feb. 06. (For unknown reasons chicks disappeared at age of audibly begging.) Pair had made breeding attempts the two previous years but ostensibly given up because of extreme liability to disturbance. (Breeding of birds is not on the agenda of PESCP, the nest hole had been provided to placate pair that was increasingly aggressive to caretakers.)

A non-breeding female was seen at Maramig Trail, 1 km E of Station, 18 Mar 06, the first sight record since '99, the last breeding of the species in the peninsula. This observation adds to the earlier suggestion that for unknown reasons part of the female segment of the population is not breeding.

Visayan Tarictic Hornbill *Penelopides panini panini* breeding in Brgy. Canayan, Libertad, in coastal lowland, this last spring 3 Apr 06 and in 05. Mentioned here because of extreme tameness against humans in a house 20 m away from nest tree (Eduard Geronimo pers. comm.); breeders are likely PESCP releasees from Station Sibaliw, ca 10 km beeline distance away.

For more information on the breeding biology and the achievements in regard of the release of radio-tagged birds see chap. 1.4.3 (Conservation Research).

Red-bellied Pitta *Pitta erythrogaster*: Nest with 1 nestling near tributary to Buruanga River, turbine area of Station, of probably this (and not Hooded) species, 26 Jul 05 (pictures by S. Hembra). A further nest with 3 eggs beside Maramig Trail at 50-100 m asl., well in the coconut and shrub zone above the coastal barrios, 18 Oct 05. Not too surprising since breeding has been known to occur from Aug – Apr in addition to 3 young on Palawan (Kennedy et al. 2000, l. c.) though breeding in rainy season is noteworthy.

Hooded Pitta *Pitta sordida*: Nest with 2 young found beside Maramig Trail, karstic Legedan Area, at ca 200 m asl., 11 Aug 05 (Niño Geronimo pers. comm.). (all these Pitta records overlooked when collating data for the 12th Report in 2006). Previously eggs found in Jun and enlarged gonads in Feb (Kennedy et al. 2000, l.c.)

Balicassiao *Dicrurus balicassius*: Second nest found by project, open cup-shaped on branch of Lauan (*Parashorea*) just above a Racquet-tail (*Prioniturus discurus*) nest hole**,** with both parents feeding, Bulanao Trail close to ridge with Lauan (*Parashorea*) canopy net, 28 Apr 06. Empty eggshell greenish-grey with light-brown to dark-brown specks all over (S. Hembra, pers. comm.). First nest for the country found by PESCP, 20 m above ground, cup-shaped at end of branch, with three eggs, white, speckled red. Also near a hole-breeder (Tarictic pair), 11 May 03 (10th Report, 2004). Comparison of both nests indicates eggshell colouration is perhaps variable.

White-browed Shama *Copsychus luzionensis*: First nest found near Station in hollow branch of dead tree 2 m above ground, 2 eggs (measured), greenish with dark-brown spots all over, lined with dry leaves, small sticks and fern stalks, in primary forest near Station, 7 May 06 (pictures taken, S. Hembra, pers. comm.). Record falls squarely in line with what was known (Kennedy et al. l. c.).

Roosting

All accounts of this habit qualify as new since it goes habitually unrecorded, just as behaviour in general is getting short shrift in the handbooks.

White-eared Brown-Dove *Phapitreron leucotis*: Two birds roosting with body contact 7 m above ground in secondary forest, ca. 20 m from Station, where in the daytime no bird had been heard calling, 1 Sep 06 (Benjamin Tacud pers. comm..).

Olive-backed Sunbird *Nectarinia jugularis* female found roosting on the upper rim, beside the petiole, of a leaf of a small 'Hambuaya' tree, well sheltered against rain by an overhanging leaf, on three consecutive evenings, 29 Sep to 1 Oct 06. Deserted the place, likely due to photography by the Ed. A distinct orange tinge on breast, as is characteristic of race *N. j. aurora* of the wider Palawan region, suggests this race to occur on Panay where nominate *N. j. jugularis* with a plain yellow underside should occur, or indicates an admixture of *aurora* genes (?). – In the daytime no sunbird was seen around the roost place at the time and search in the night revealed no companion bird nearby. Hence, social as these birds are, they may separate at dusk and individually select an optimal roost, even at some distance from their daytime area.

Note that the two latter records indicate that birds may fly a good deal from their daytime roaming area as noted already by Heinroth & Heinroth (1924-34, Die Vögel Mitteleuropas, Hugo Bermühler Verlag, Berlin-Lichterfelde, reprinted 1965-68, Edition Leipzig and Harry Deutsch Verlag, Frankfurt/ M.) for the European Blackbird (*Turdus merula*); after long trains of mobbing 'in vacuo' at dusk it silently departs to its roost beyond eyesight in virtual darkness – perhaps an antipredator strategy.

Orange-bellied Flowerpecker *Dicaeum trigonostigma*: Single male found roosting on a twig 2 m above ground in primary forest, not particularly sheltered from above, near Culasi, May 06 (M. Gaulke pers. comm.).

Longevity

Red Junglefowl *Gallus gallus*: An adult female of unknown age, trapped ca 1 km from the Station, had been ringed in '99 and had since bred regularly near the Station. Last seen in Jan 06 so that longevity was at least 7 years which is remarkable for a group of birds that incur a high annual mortality. It stands at 72% annually in the San Diego Zoo with a feral population with the main mortality factor being predation. Similarly annual mortality, though including shooting, of Ring-necked Pheasants (*Phasianus colchicus*) in the USA, stands at 75% so that four year old birds are a rarity (Johnsgard 1986, The pheasants of the world. OUP). Such mortality rates translate into a life-span of less than a year.

Bird/ spider interaction

Orange-bellied Flowerpecker *Dicaeum trigonostigma*: An adult female flew into the Station at night time, apparently fleeing from a predator to the light inside the Station (as happened with other passerines before). It got trapped with both legs in a *Nephila* sp. spider's web suspended vertically from the roof, at ca 2.5 m above the floor. The threads were strong enough for fatally arresting the bird in spite of vigorous fluttering by even entangling only one leg, 29 Sep 06. When immediately freed by me the bird proved unharmed and after handling was gently released on a branch and pictures taken. – This observation reminds of similar ones of *Ceyx melanurus* and *Hypsipetes philippinus* caught by the still sturdier webs of what had probably been *Argiope* sp. (Benjamin Tacud pers. comm.). It highlights spiders' webs as a source of birds' mortality that deserves further study.

Flying birds master tiny openings in the foliage – how do they do it?

Since long man marvels at birds such as parrots, woodpeckers, kingfishers or thrushes with bounding flight when flying long distances of say 100+ m through the canopy in what appears a virtually straight line without hitting a single twig or leaf. How is this possible when a human is usually at a loss to direct through foliage an uncluttered gaze beyond a distance of only 20-30 m? There can be only two solutions: Either the bird plans its straight trajectory to a point in space at the cost of compromising the intended goal, or, the bird changes its body shape so as to avoid damage or injury. In bounding flight, the straight flight path is superimposed by slight undulations in the vertical corresponding to upward cycles of wing flapping alternating with swoops with wings sleeked to the body; the sleeking of the wings minimizes the bird's cross section that otherwise, during each flapping, would maximally extend – roughly – up to the wingspan. Experimental findings on Philippine Bulbuls and Tarictics in the wild bear out that these birds – and probably many other forest-dwellers – can apparently modify the timing of the sleeked-wings swoops so that they do not collide with obstacles in their way. One can estimate that the time from perceiving an obstacle to the motor command output of wing-sleeking is in the order of a few milliseconds, an astonishing feat (Curio in prep.). This finding does not rule out, of course, that the prior planning of a flight path is not used as well.

1.5.3 Do Spines protect Prey against Hornbills? It depends

Many animals and plants possess spines that are conspicuously coloured by contrasting with the background colouration of their owner (Ruxton et al. 2004: Avoiding attack. Oxford Univ. Press; Inbar & Lev-Yadun 2001, Naturwiss. 92: 170-172; Lev-Yadun 2003, J. Theor. Biol. 224: 183-188). Conspicuous spines are thought to signal the predator or non-beneficial consumer that an attack is costly because of injury. In principle then, the conspicuous colouration acts as a warning signal similar to warning colouration of distasteful and/ or noxious prey or fruits. There is an additional advantage to conspicuous spines: they signal the receiver at a distance so that injury is avoided on both sides whereas unpalatable/ noxious food need to be tried to betray their repellent nature. This, however, is only true if the production of spines plus colour is less or equally costly than the production of defensive chemicals plus colour. Since little is known about the role of spine colouration as a means of defence **Andrea Nüsse** took a long look at the response of captive hornbills to spines. The birds (male and female Visayan Tarictics and Dulungans) were slated for release at Station Sibaliw.

Andrea first tested, in cafeteria (= choice) experiments, responses to natural insect prey. The latter consisted of a grasshopper (Acrididae) with conspicuous, i. e. contrasting spines, and a cricket (Gryllidae) with inconspicuous spines.

Trimming of the spines had no effect on the acceptance of the prey by the birds, perhaps because both prey offered were extremely popular. However, when glued to standard-sized pieces of fruit (Banana, Papaya, intact similar-sized *Platea excelsor,* dark blue plum-shaped fruit) the spines exerted a strongly repellent effect: Whilst >90% of the unchanged, spineless fruit were swallowed intact the experimental ones to which three rows of spines of either species had been glued were mandibulated at length in >90% of all tests before being swallowed. Clearly, all other things being equal, a lengthy handling would give an insect the chance of escape.

Since spiny prey was of limited supply artificial spines made from sharpened tooth picks of the length of natural spines were fastened in the fruit items. And fruit pieces were dyed with

non-toxic food colours. Protection became evident in two ways. Spiny fruit items were rejected upon visual inspection alone in preference to spineless ones. Furthermore, the former were handled for longer than the latter. However, this two-pronged protective effect depended very much on spine colour contrasting with the background colour of the fruit, with the greatest contrast (to human eyes) protecting best. Yet it is also the sign of the contrast that matters: yellow spines on a blue Banana were more effective than blue spines on a yellow Banana.

That the spines were repelling already at a distance was to be expected on grounds of the hypothesis that contrasting spines should do exactly this. However, the finding that conspicuous spines caused longer handling once being picked up in the beak is very surprising since the mechanical stimulation leading to mandibulation is the same in all cases. The birds, one must conclude, 'believe their eyes' more than their mechanoreceptors in the gape of the bill. In aggregate, the protection conferred by the spines is twofold: one acting at a distance, i.e. without injury to the prey (and the predator), the other even after seizing of the prey by the bill. The protection derived from spines as a function of warning (= contrasting) colour falls in line with theory according to which warningly coloured spines can be evolved in the absence of distastefulness (Speed & Ruxton 2005, Evolution 59: 2449-2508).

Aside from the contrast-of-colour effect mentioned yet another puzzling colour effect was found that leads to new testable predictions. Red spines are less effective throughout, regardless of the background colour, than three other non-red sorts of spine.

Appendices

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App. 2:	Kuenzel	Accomplishment Report on Law Enforcement, 2 parts
App. 3:	Kuenzel	Complaint about Police of two Municipalities, Nov 06
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App. 6:	Dungganon	Addenda I and II to Accomplishment Report
App. 7:	Alabado	Post-assessment of Dulungan Nest Holes: Fledging in the Sebaste Area of the CPMR
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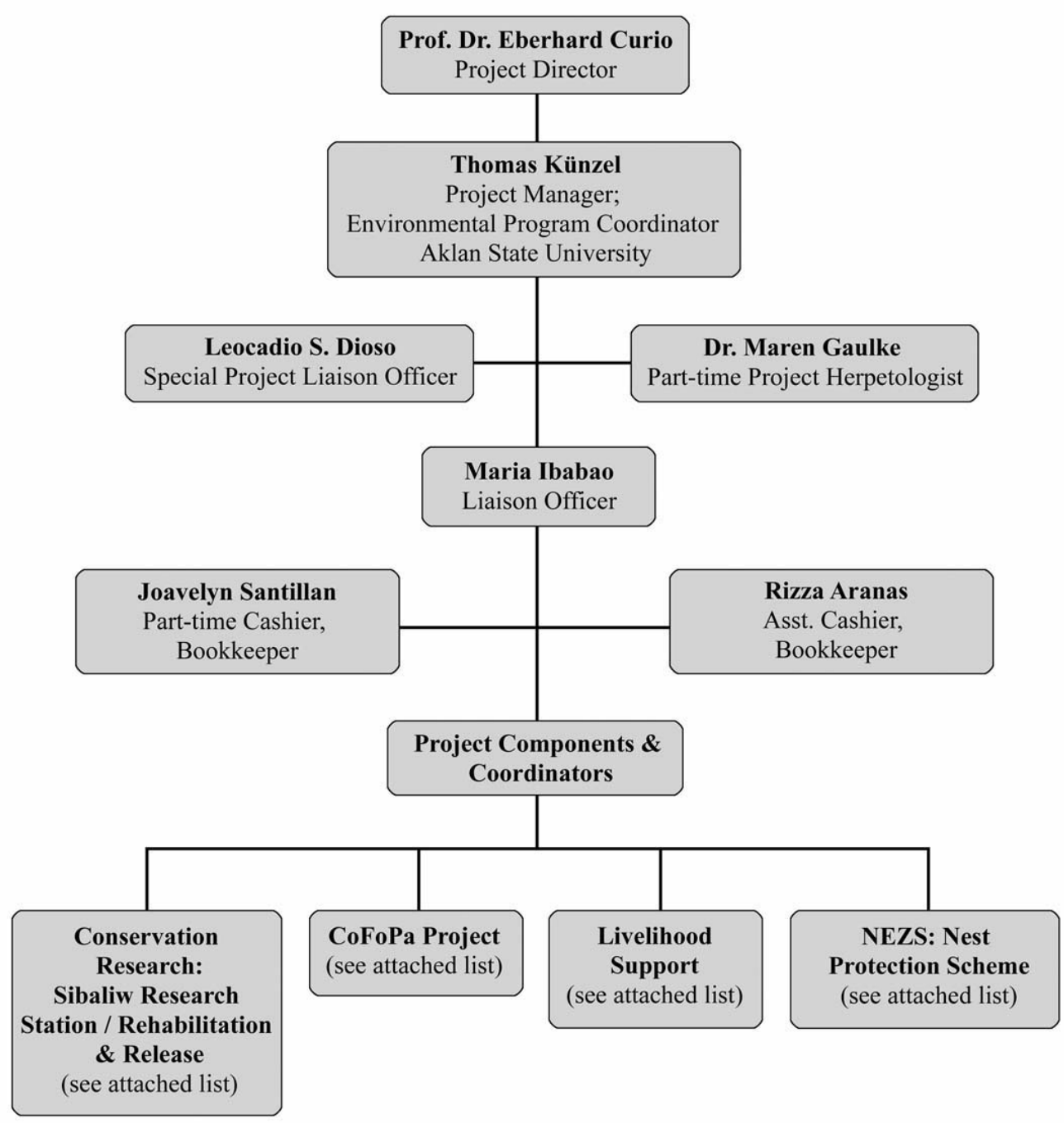
App. 9:	Sanchez	Animals turned in to Rescue Facility Mag-aba and stock existing before
App. 10:	Sanchez	Wildlife Flow Chart and Decision on Destination of Wildlife turned in to PESCP Rescue Facilities
App. 11:	Gaulke & Operiano (2006a)	*Hoplobatrachus rugulosus* – Chinese Bullfrog. Sauria 28: 51
	Gaulke & Operiano (2006b)	*Oxyrhabdium leporinum visayanum* – Banded Philippine Burrowing Snake. Sauria 28: 51-52
App. 12:	Rösler, Siler, Brown, Demegillo & Gaulke (2006)	*Gekko ernstkelleri* sp. n. – a new gekkonid lizard from Panay Island, Philippines. Salmandra 42: 197-211
App. 13:	Curio (2006)	Notes on two species of endangered Philippine hornbills with an emphasis on breeding biology. In: Lum & Poonswad (Eds.). 2005. The Ecology of Hornbills: Reproduction and Populations. Pp. 11-24. Bangkok, Pimdee Karnpim Co., Ltd.
App. 14:	Hembra, Tacud, Geronimo, Villanueva, Jamangal, Sanchez, Bagac & Curio (2006)	Saving Philippine Hornbills on Panay Island, Philippines. Re-introduction News 25: 45-46
App. 15:	Gewers, Curio & Hembra (2006)	First observation of an advertisement display flight of Steere's Honey-buzzard *Pernis (celebensis) steerei* on Panay, Philippines. Forktail 42: 163-165

App. 1

PESCP **Organigram and Staff of PESCP. Status End 2006**

Updated Organizational Structure and Staff of Philippine Endemic Species Conservation Project (PESCP)



PESCP Staff

CONSERVATION RESEARCH

Sibaliw Research Station:

- Sherwin S. Hembra – full time (till 31 Aug 06)
- Leobert Macero – full time (from 1 Nov 06)
- Benjamin Tacud Jr.- full time
- Junmar Jamangal – part time
- Edward Geronimo – part time
- Felimon Geronimo – part time

Researchers (Germany) – part time
Prof. Dr. Wilfried Bennert
Dr. Maren Gaulke
Adriana Silva, M.Sc.

Volunteers (Germany) – part time

- David Bellhoff
- Ingo Busch
- Manuela Esslinger
- Inga Grote
- Kristina Hähn
- Stefanie Hellmann
- Sabrina Henkel
- Boris Jechow
- Carina Marek
- Andrea Nüsse
- Stefan Schreiber
- Jörg Sareyka
- Bettina Vorsprach

Volunteers (Philippines) – part time
Niño Espinas with 16 students from Philippine Science High School - Main Campus, Department of Science and Technology, Diliman, Quezon City

Rehabilitation and Release of Wildlife (see also PESCP Staff above)

- Enrique Sanchez, DVM – part time
- Macario Melchor – part time
- Nestor Bagac – full time

Community Work & Nest Protection Scheme (NEZS; 'GEO protects the rainforest') of PESCP:

- **Richard Lestino – full time**
  (Wildlife Educator)

Community Conservationists:

- Nelson Esto
- Alfredo Onao
- Keneth Dalumpines, Dalagsaan, Libacao, Aklan
- Sonny Esto – part time, Oyang, Libacao, Aklan
- John Inggo – part time, Manica, Libacao, Aklan
- Romeo Agustin, Igpatuyaw, Sebaste, Antique
- Rolly Fernando, Abiera, Sebaste, Antique
- Isidro Montales, Paningayan, Culasi, Antique

- **Alexander Alabado –full time**
  (Wildlife Educator)

Community Conservationists:

- Vicente Filaro – part time, Alojipan, Culasi, Antique
- Arnaldo Nabas – part time, Osorio, Culasi, Antique
- Nelson Anos – part time, Flores, Culasi, Antique
- Joman Manga – part time, Alegre, Sebaste, Antique
- Alberto Mangga – part time, Alegre, Sebaste, Antique

- **Julius Venus – full time**
  (Wildlife Educator)

Community Conservationists:

- Carillo Agudes – part time, Sitio Caningag, Manica, Libacao, Aklan
- Noel Agudes – part time, Sitio Aytabag, Manica, Libacao, Aklan
- Charlie Esto, Sitio Nulwan, Tapaz, Capiz
- Dante Nabalde, Ma. Cristina, Madalag, Aklan
- Rey Dalumpines, Aglunok, Calinog, Iloilo
- Jessie Bagac, Usman, Malinao, Aklan
- Armelito " Bong" Ebon – part time, Guia, Pandan, Antique

Law Enforcement and Field Research:

- **Arnold Demegillo – part time**
  Forest Rangers and BIOPAT Project Coordinator

- **Maria T. Ibabao, full time, Liaison Officer; Forest Rangers Coordinator, from 15 Sep 06**

PESCP Forest Rangers (full time unless otherwise)

- Raymundo Alejandro Jr.
- Federico Antoy Jr.
- Armelito B. Ebon
- Joven B. Dujali
- Faustino Guillermo
- Cerwin A. Ibanes
- Juman M. Manga
- Francisco Nabong
- Edilberto Malabja, till 1 Sep 06
- Carlito Mateo
- Roberto Nepomuceno
- Joeserey Tenorio, till 1 Sep 06
- Ralito Tenorio
- Expedito Paulino Sr., till 1 Sep 06
- Expedito Paulino Jr., till 1 Sep 06
- Gualberto Tamboong
- Maria T. Ibabao – part time

BIOPAT Project

- Narciso Paulino – part time
- Gersom Operiano – part time

CoFoPa Project – "Community–based Maintenance and Restoration of Forest in Central Panay Mountain Range and Protected Area of NW Panay Peninsula"

Project Management Staff:

Thomas Künzel – Project Supervisor
Reynaldo S. Elio – Assistant Project Supervisor (till 15 Feb 06)
Prof. Rogelio Felizardo – Project Manager – ASU
Ms. Ethel Lachica - Bookkeeper — 25 Peso Multi Purpose Cooperative

Forester John R. Espiritu – Forester
Sonny Eupre E. Galuego – Asst. Forester
Henry Dungganon – Upland Agriculturist, Livelihood Coordinator
Dr. Enrique Sanchez, DVM – Veterinarian Consultant
Richard Lestino – Wildlife Educator

Liaison Officers:
Sugar Doroteo – Alojipan, Culasi, Antique
Alonie de la Torre – Idio, Sebaste, Antique
Arnold Demegillo - Sitio Calabanog, Idiacacan, Pandan
Maria T. Ibabao – Sitio San Juan, San Roque, Libertad (see also above: Forest Rangers)

Nursery Caretakers:
Edwin Filaro – Alojipan, Culasi, Antique
Roberto Ronquillo – Idio, Sebaste, Antique
Julito Dioso – Sitio Calabanog, Idiacacan, Pandan
Estelito Unlayao – Sitio San Juan, San Roque, Libertad
Alfonso Nabor – Castillo, Makato, Aklan

SUPPORT STAFF – Based in Barangays Cubay and Bulanao, Libertad
Porters – all part time

- Planto Absalon
- Ventura Matanga
- Antonio Geronimo Jr.
- Rexil Geronimo
- Ben Pabay
- Jerry Roldan
- Aldren Magbanua
- Silvestre Ebon
- Rene Saluta
- Moises Bagac
- Felicito Villamor
- Edmar Cabarlis
- Rico Bulan
- Benjie Geronimo
- Niño Geronimo
- Tiborsio Bernabe
- Alfonso Absalon
- Waren Geronimo
- Victor Bernal
- Pablito Diaz
- George de Guzman
- Marcelo Jamangal
- Ernesto Fernandez
- Ramon Samulde
- Alan Absalon

App. 2

Kuenzel **Accomplishment Report on Law Enforcement, 2 parts**

- **Accomplishment Report on Law Enforcement Activities in 2006 executed by PESCP in Coordination with its Partners in PNP and DENR, 15 Dec 2006**

- **Environmental Law Enforcement Report No. 19 of PESCP, MOA-Partner of the DENR; letter to RED Julian D. Amador, DENR Reg. VI, Iloilo City, 15 Oct 2006**

Philippine Endemic Species Conservation Project
(PESCP)
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and Ruhr University Bochum, Germany,
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PESCP: Implementing Arm in the Biodiversity Conservation Program of the Municipality of Pandan
(SB of Pandan, Res. No. 204-2002)
and
PESCP: Official Partner of the DENR through MOA signed by its Secretary
(valid until 2010)
and
PESCP: Official Partner of the Police Station of Pandan, and the 32nd Reconnaissance Company (3rd ID) in the Protection of the Environment (MOA signed on 15 June, 2003)

Accomplishment Report on Law Enforcement Activities in 2006

executed by PESCP in coordination with its Partners in PNP and DENR

Thomas Kuenzel
Manager of the Philippine Endemic Species Conservation Project (PESCP),
Environment Program Coordinator of Aklan State University (ASU),
Integrated Expert of the German Technical Development Agency (GTZ/CIM),
Member of BOD of the Philippine NGO PhilConserve.

Beside having destroyed 59 air guns and 7 home made shot guns, and 100+ snares (for spotted deer*, warty pig*, monkeys, flying foxes*, birds, mabitang*, etc.
[* = endangered]) collected in the forests of the PA of NW Panay Peninsula and the Central Panay Mountain Range, the following successful law enforcing activities have been made possible through monitoring activities of PESCP-Forest Rangers in tight cooperation with PNP and DENR:

(Note: all forest products and chain saws recovered or apprehended by PESCP have been handed over to PNP or the DENR.)

Date of Operation	Material Apprehended Origin of Forest Products and Tools; Name of Chain Saw Owner
24 Jan	1 illegally possessed chain saw apprehended Nabas, Aklan;

Crispolo Bender

15 Feb 81 bd ft of lumber made from illegally cut naturally Viejo Iki, Sebaste,
grown Igmin tree apprehended
Antique

22/23 Mar 4 Narra + 4 Maganhop trees all naturally grown were Botbot, Pandan
found illegally cut down; being given into the Antique
custody of the PNP Pandan these trees have been
chain sawed and the resulting lumber (1,232 bd ft Narra
+ 2,500 bd ft Maganhop) hauled to the National Road by
PESCP-FRs + people from Botbot.

31 Mar 1 illegally used chainsaw apprehended,
Patria, Pandan,
likewise 27.4 bd ft Molave
Antique;

05 Apr 1 illegally used chain saw apprehended
Cubay, Malay,

Aklan

28 Apr 3 illegally cut Narra trees apprehended
Idiacacan, Pandan,

Antique

04 May 88 bd ft of illegally cut Badlan tree apprehended
Nauhon, Sebaste

Antique

11 May 1 illegally used chain saw apprehended
Tigum, Malay,

Aklan

Salvador Estuya

11 May 1 illegally possessed chain saw apprehended
Katipunan, Buruanga

Aklan

Gaspar Casimiro

07 Jul 1,600 bd ft illegally cut down Kalantas tree found,
Laserna, Nabas,
80 bd ft apprehended and left to the responsibility Aklan
of the DENR Kalibo

07 Jul	1 ha kaingin found inside the Protected Area of Nabas Laserna, Nabas, Aklan	
23 Jul	1 illegally used chain saw apprehended Toledo, Nabas, Aklan Samuel Zamota	
24 Jul	171 bd ft of illegally cut lumber of Toog, Ughayan and Tagororoc, Nabas, Badlan trees apprehended Nabas	
11 Aug	21 bd. ft of illegally cut Narra tree apprehended	Centro Sur, Pandan, Antique
15 Aug	1 illegally used chain saw apprehended	Habana, Buruanga, Aklan, Rey de la Tina
29 Aug	Illegal transfer of native timber trees from Pandan to Luzon discovered	Libertad, Antique
11 Sep	1 Illegally cut Narra tree found and apprehended Sta. Anna, Pandan, Antique	

17 Sep	16 Narra and 4 Lauan tree found illegally cut	S. Andres, Pandan, Antique
08 Oct	Illegal used chain saw apprehended	Zaldivar, Pandan, Antique
16 Oct	48 bd ft illegally cut Narra lumber apprehended	Calabanog, Pandan Antique
04/05 Nov	1 kasko made from illegally cut Salong tree appre-hended	Bagumbayan, Buru-anga, Aklan
21/22 Nov	Illegal logging of 3 Mahogany and 5 Gmelina trees in DENR reforestation site discovered	Buena Fortuna, Nabas, Aklan
28 Nov	23 bd fd of illegally cut lumber discovered in the field and handed over to the police. 692 bd ft of illegally cut lumber apprehended from a residence in Sebaste and handed over to the Police	Sebaste, Antique
30 Nov	143 bd ft of illegally cut lumber discovered in the field and handed over to the police.	Sebaste, Antique

The Management of PESCP is hereby acknowledging the very professionally sound support we have been experiencing throughout the whole year from the Police Stations of Libertad and Nabas, both in Antique, and from the CAFGUs posted in Santa Cruz, Pandan, and in Laserna, Nabas. Without the help of the numerous Police Men and the CAFGUs from these Stations, PESCP would not have been able to realize the accomplishments listed here.

Pandan, 15 Dec, 2006,

Maria Ibabao (Leader of PESCP's FRs)
Arnold Demegillo (Liaison Officer)
Thomas Kuenzel (Manager of PESCP, Environment Program Coordinator of Aklan State University, Integrated Expert of GTZ/CIM, Germany)

Philippine Association for Conservation and Development (PhilConserve)

Philippine Endemic Species Conservation Project (PESCP)

of the Frankfurt Zoological Society, Germany,
Ruhr University Bochum, Germany,
Aklan State University, Philippines,
in cooperation with
GTZ/CIM, Germany

PESCP Office, Tajanlangit Bldg., Centro Norte, Pandan, Antique
Ecurio@gmx.de thomaskuenzel2@yahoo.de

PESCP: Official Partner of the DENR through MOA
PESCP: In tight Partnership with 25-Peso Multipurpose Cooperative (25 PMPC) and UNDP

15 October, 2006
PESCP-ELER No. 19 / 2006

To: **Mr. Julian D. Amador,** RED Reg VI, DENR, Iloilo

Environmental Law Enforcement Report No. 19 of PESCP, MOA-Partner of the DENR
Alleged illegal cutting of 16 Narra (prime species) and 4 Lauan

Location: San Andres, Pandan, Antique
Date: 17 Sep., 2006
Time: 08:30 AM – 14:30 PM
Parties involved:
PESCP Forest Ranger (FR): Edilberto N. Malabja, Maria Ibabao, Jose Matinong,
Expedito Paulino Sr, Expedito Paulino Jr,
Raymundo Alejandro, Faustino Guillermo,
Cerwin Ibanez, Josery Tenorio, Robert Nepumoceno,

23 men of the LGU San Andres participated including the Brgy Cptn, Hon. Samuel Dionela

Activities and Findings in the Field on Sep 17:
During a discussion with the Brgy Cptn of San Andres, Hon. Samuel Dionela, on 14 Sep, 2006, both parties (LGU San Andres and PESCP) agreed on the need for an increase of joint field activities to fight illegal logging in the area, and it was decided to execute such a joint mission on Sunday, 17 Sep 2006.

During the time of 08:30 AM until 02:30 PM a joint party of 23 men monitored the forests of San Andres.
During that monitoring mission the following illegally cut trees were found:

Registered by the team of the LGU San Andres a sub-total of 15 trees as follows:

6 Lauan	diameter on the ground: a) 16 inches, b) 14 inches + 52 ft length
1 Palomaria	diameter on the ground 16 inches (all lumber hauled)
1 Molato	diameter on the ground 14 inches (all lumber hauled)
1 Calantas	diameter on the ground 20 inches + 20 ft length
1 Malagabi-I tree	diameter on the ground 18 inches
5 Narra trees	nothing measured because the trunks are in difficult terrain

Registered by the team of PESCP a sub-total of 9 trees as follows:

1 Baslayan	circumference 10 x 12 inches; length 8 ft
1 Baslayan	circumference 10 x 12 inches; length 10 ft
1 Kalantas	circumference 20 x 24 inches; length 12 ft
1 Kalantas	circumference 18 x 20 inches; length 10 ft
1 Narra	circumference 32 x 34 inches;
	branch circumference 14 x 14 inches; length 3 meters
	branch circumference 18 x 18 inches; length 2 meters
1 Narra	circumference 35 x 50 inches; (all lumber hauled)
1 Narra	circumference 40 x 55 inches; (all lumber hauled)
1 Narra	circumference 40 x 50 inches; length 7 ft
1 Narra	circumference 40 x 48 inches; length 7 ft

Notes:

(1) The Brgy Cptn of San Andres mentioned that his assets reported to him before Sep 17 that 31 trees have been illegally cut not only 21 as we found on Sep 17. Therefore, a second monitoring mission was planned together with Police, DENR, LGU and PESCP executed on Oct 05. Unfortunately, during that second mission the weather conditions were very bad, and a proper counting and scaling of illegally cut down trees was not possible.

(2) After the monitoring mission on Sep 17 the alleged mastermind of all this logging, Robencio Tenorio from San Andres, has been summoned by the Brgy Cptn of San Andres. R. Tenorio did not show up during the first summoning-date, and during the second summoning-date Robencio Tenorio came to the Brgy Hall of San Andres (the summoning place) but stayed there for ca. 15 min only. When Robencio Tenorio saw the Chief of Police arriving at the scene R. Tenorio decided to escape and run into the mountains.

(3) Military Intelligence, Police, LGU and PESCP gave R. Tenorio the 26 Sep as a deadline to surrender before the Military would go for him. Robencio surrendered in the morning of Sep 26 to the authorities in the Office of PESCP, where he was interrogated in the presence of the Chief of Police of Pandan, the MENRO of Pandan, the Leader of the PESCP FRs and the Manager of PESCP. Robencio admitted during that interrogation his involvement in the illegal cutting of a certain number of naturally grown trees. An affidavit wherein the persons present during the interrogation of Robencio are stating that he admitted his involvement in illegal logging will be made available to the DENR through PESCP soon, and all effort must be taken by the DENR to file a court case against Robencio Tenorio with the target to put Robencio into prison according to the law regarding the illegal cutting of prime species. The fact that Robencio did not give any information about the other illegalists helping him must be taken against Robencio. The full force of the law must be applied against him as long as he is not willing to report his illegal helpers to the authorities. PESCP is very much interested to hear from Robencio if FRs of PESCP were involved in his illegal activities.

(4) It must be taken into consideration that
a) the illegal cutting of 31 trees (as reported by the Brgy Cptn of San Andres) cannot be the work of one man alone, and
b) the large number of trees being chain sawed and marketed could easily amount to 31 trees x 500 bd ft x 65 Peso in the black market, which totals to ca. P1 million, which makes it very obvious that there must be a rich contractor behind Robencio.

(5) The people of San Andres have been aware of the illegal logging activities in their area for months, and have been asking PESCP to find out and stop the illegal loggers. PESCP had employed 5 Forest Rangers coming from that area, who always denied that any illegal logging was

going on in the area of San Andres. These 5 FRs have been released from any further assignment to PESCP with effect of Sep 15, 2006.

PESCP's Suggestions:

(1) Filing a court case against Robencio Tenorio.
(2) Securing the forest products, which still remain in the cutting sites as soon as possible, before the illegalists get them.
(3) Executing a full fledged investigation of the case.

Thomas Kuenzel, Manager PESCP

CC: Brgy Cptn San Andres, Police Pandan, MENRO Pandan, CENRO Culasi, PENRO Antique

App. 3

Kuenzel **Complaint about Police of two Municipalities, Nov 06**

Philippine Association for Conservation and Development (PhilConserve)

Philippine Endemic Species Conservation Project

(PESCP)

of the Frankfurt Zoological Society, Germany,
Ruhr University Bochum, Germany,
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23 November, 2006

To: **Police Superintendent William Macavinta**
Provincial Police Director of Aklan
Aklan Police Provincial Office, New Buswang, Kalibo, Aklan

Ref.: Complaint about Police of Buruanga and Nabas

Dear Sir,

Herewith, the undersigned in his position as the Manager of the Pandan-based Philippine Endemic Species Conservation Project (PESCP) of the Frankfurt Zoological Society (FZS, Germany), and as the Environment Program Coordinator of the Aklan State University (ASU) in Banga, is forwarding to the Provincial Director of the PNP two complaints, as follows:
(1) Complaint about the Chief of Police in Buruanga with regard to incompetence, rude behaviour, being uncooperative in a case of illegal logging activities, acting rather as a "pet dog" of his Mayor than as a responsible staff of PNP.
(2) Complaint about the OIC of the Police Station of Nabas with regard to incompetence and being uncooperative in a case of illegal logging activities.

---

(1) Complaint about the OIC (SPO 2 Evangelista Escaluna) in Buruanga, Aklan

On November 05, 2006, PESCP was informed by a concerned citizen about illegal logging going on in Bagumbayan, Buruanga, Aklan. PESCP-Forest Rangers (FR) immediately went out to monitor the site mentioned by the asset, and found one 5 m - kasko (made out of a naturally grown Salong tree standing on a 60 ° slope) and a number of tree stumps (1 Salong, 1 Ughayan, 1 Kulatingan, 1 Narra = prime species, 1 Dau) revealing illegal logging activities in the past weeks and months.

After coordinating with the Brgy Cptn of Bagumbayan and his Council the LGU immediately made available a vehicle and 15 men to transport the kasko from the cutting site to the brgy where it was officially given into the custody of the Brgy Cptn.
The Police of Buruanga was informed by phone about that activity, and later on arrived in the brgy. Unfortunately, and to the surprise of all (including the Brgy Officials) the Police of Buruanga behaved in a rude and unprofessional manner, and did not show any interest at all in the case of illegal logging.

First of all, when the Police (3 + their OIC) arrived the OIC was not making any effort to introduce or to identify himself, and beside that, instead of wearing any piece of proper uniform, he came in shorts and sleeveless shirt, which made it hard to recognize him as OIC. The only message he had was a message from the Mayor of Buruanga to inform the PESCP-FRs that they should not do forest monitoring in the area of Buruanga because Buruanga, so the message "does not belong to the area of jurisdiction of the PESCP-FRs" as the Police put it. Which is wrong in many aspects; as, e.g., a Municipal Mayor does not have the power to order civilians to stay off his area of political jurisdiction except there exists an according court order against these civilians, etc., etc.

Out of a variety of good official reasons explaining why the PESCP-FRs have the right/duty to do forest monitoring in Buruanga (and all over the Philippines) I shall mention here the following two only: (1) PESCP-FRs are authorized to do environmental law enforcement activities through a MOA signed by the Secretary of the DENR, (2) PESCP-FRs are an active part of the task force Anak-Talon, which has been installed years ago by the NW Panay Biodiversity Management Council – by the way, also the Police of all Municipalities around the NW Panay Peninsula is part of that task force (unfortunately, until today on paper only). Anyway, from various other expressions of the Mayor of Buruanga we are already forced to believe that she either does not know the Chain Saw Law or does not want that Law to be implemented (we could provide proof for this opinion anytime). Therefore, we are not surprised about her way to comfort illegalists as potential voters; as it is the usual corrupt way of many politicians. But anybody has to expect from a Chief of Police / OIC to know and respect the Law. Beside that strange behaviour (acting not as Police Men but rather as "pet dogs" of the Mayor of Buruanga) the arriving Police did not show any politeness or any respect to the FRs of the PESCP; they even refused to bring forward any acceptable greeting when they arrived at the scene, and refused to recognize/appreciate the presence of the Leader of the PESCP-FRs.

Being disturbed by the behaviour of the Police the Leader of PESCP-FRs called me to come to the brgy where I discussed the case with the Brgy Officials who expressed their distress about the behaviour of the Police of Buruanga.

To avoid any misunderstanding, I together with the PESCP-FRs and the Brgy Cptn of Bagumbayan immediately visited the Police Station of Buruanga to give the OIC the opportunity to explain the situation by himself hoping that any misunderstanding could be stumped out. Unfortunately, the OIC of Buruanga stubbornly added another incompetent argument against the anti-illegal logging activities of the PESCP-FRs. He told us that he does not think that a chain saw is illegally possessed when not being properly registered with the DENR. By saying so he used the same wrong argument as the Mayor did in public few weeks ago. We understand that the Mayor is in need of voters to win the next election, and therefore sides with everybody who can be seen as a potential voter in her favour (even with illegalists), but no Police Chief should sink so deep into a Mayor's dependency / corruption that he is following the same unhealthy path of incompetence and unprofessionalism.

(2) Complaint about the OIC of the Police in Nabas, Aklan

First of all I have to state here that with the former Chief of Police in Nabas who has been transferred already to another Station there was always a very fruitful cooperation if PESCP needed police support for anti-illegal logging activities.
But, on 20 November, 2006, around 04:00 P.M., when the DENR PASU (Mr. Rodel Lababit) of the NW Panay Protected Area together with me approached the Police Station of Nabas asking them for some policemen to accompany us the next day for a monitoring mission in the forest of Buena Fortuna (about which we had information about illegal logging) the police refused to cooperate. They were using various excuses as follows: (1) they are undermanned, (2) they are not allowed to go out with us for any mission without us presenting them a written order/permission from the Provincial Police Director, (3) they are not allowed to go out for any mission when they have to go farther into the forest than one hour's walk, (4) we could call them into the forest when we have positive findings about illegal activities, which is a very tricky argument, because calling the police into the forest gives any illegalist enough time to run.

All these excuses except number (1) – being undermanned – are nothing else than clear expressions of the incompetence and unwillingness of the Policemen giving such explanations.

As an argument we are mentioning here only the PNP Master Plan Sangyaman for the Protection of the Environment and Natural Resources. Through this Master Plan the PNP hopes to formalize a close working relationship with the Department of Environment and Natural Resources (DENR), and NGOs involved in the protection, conservation, and development of our environment and natural resources of the country. In this context, various PNP LOIs as, e.g., LOI 36/93 DUHAT (Campaign Plan Against Illegal Logging) have been written.

In the two complaints forwarded here the Master Plan's ideas/orders have been clearly violated. The police refused cooperation with an NGO and with the PASU of DENR in two serious cases of illegal activities being harmful to the environment.

I would like to ask the Provincial Police Director to ensure that his station Chiefs / OICs act according to the Master Plan, and above all, to make sure that they know the Law and show their willingness to enforce the Law independently from their Mayor's "orders". This becomes especially important for the next year when the election takes place and many politicians are willing to close eyes and ears if it comes to fight illegal logging or slash-and-burn.

Sincerely yours,

Thomas Kuenzel
Manager of PESCP of the Frankfurt Zoological Societry (Germany)
Member of Board of Directors of the NGO PhilConserve (Philippines)
Environment Program Coordinator ASU (Philippines)
Integrated Expert GTZ/CIM (Germany)

App. 4

Curio **Visitors of Research Station “Sibaliw”**

Visitors of Research Station in Sibaliw

NAME/ AFFILIATION	DURATION OF STAY	REASON FOR VISIT
Anson M. Tagtag, PAWB/DENR	2 days, Aug 06	Reconnaissance
Medel Duarte, dto.	dto.	dto.
Jennifer Dimas, Haribon Foundation	27 Feb 06	dto.
Rhodel Cardinal, dto.	dto.	dto.
Dr. Enrique Sanchez, PESCP	Couple of times	Health check- up of hornbills to be released
Dr. Maren Gaulke, PESCP	Nov 06	Herpetological research
Prof. Dr. Wilfred Bennert	May 06	Taxonomy of ferns & allies
Niño Espinas, Philippine Science High School, Dept. of Science & Technology, Diliman, Quezon City	25 Apr – 7 May 06	Terrestrial ecology field practical: Supervision of students of the Philippine Science High School, Q. C.
16 students of Philippine Science High School, Diliman, Quezon City	dto.	Terrestrial ecology field practical
David Bellhoff, Ruhr-Universität Bochum, Germany	30 Sep – 11 Dec 06	Tropical biology practical, supervised by E. Curio
Ingo Busch, dto.	~ 10 Feb – 15 Apr 06	dto.
Inga Grote , dto.	2 Nov 05 – Feb 06	dto.
Kristina Haehn, M.S. Biology, Berlin, Germany	~ 11 Jan – 10 Apr 06	dto.
Stefanie Hellmann, Ruhr-Universität Bochum, Germany	1 Jul – 12 Sep 06	dto.
Sabrina Henkel, dto.	1 Mar -~15 May 06	dto.
Boris Jechow, dto.	5 May - 2 Jul 06	dto.
Carina Marek, dto.	7 Aug - ~12 Oct 06	dto.
Andrea Nüsse, dto.	17 Oct 05 - Feb 06	dto.
Jörg Sareyka, dto.	7 – 31 Aug 06	dto.
Bettina Vorsprach, dto.	2 Mar - ~3 May 06	dto.

Note: Some schedule information must remain deficient for want of within project communication that had broken down completely in the aftermath of the horrendous typhoon of 9 Dec 2006.

App. 5

Espiritu & Galuego **Timber Trees and Fruit Trees raised in the CoFoPa EU-UNDP Project: Nursery Work**

Timber Trees and Fruit Trees raised in the CoFoPa Project: Consolidated Data – Nursery and Rainfo Components

March 2005 – September 2006[3]

By

John R. Espiritu & Sonny Galuego

Seedling Production and Use of Seedlings:

Project Site: San Juan

SPECIES OF TREE	NO. OF SEEDLINGS	USED/OUTPLANTED	REMAINING
NATIVE TIMBER SEEDLINGS			
ALMON	2,645	60 (agro)	2,585
TAG-OSIP	4,352		4,352
TUL-AY	24		24
BALAKBAKAN	182		182
RED LAUA-AN	478		478
MAGUPANGA	69		69
PALOMARIA	338	70 (agro)	268
PAYONG-PAYONG	266	5 (agro)	261
NARRA	1,631	1 (agro) & 222 (GPH)	1,408
TABAW	157	10 (agro)	147
RAIN TREE	835	19 (GPH)	816
BATIKULING	71		71
DUKA	54		54
IGMEN	242	155 (rainfo)	87
BATWAN	267	15 (agro)	252
BIGNAI	6		6
KAMANSI	10		10
MABOLO	742	659 (GPH) & 10 (agro)	73
MAKOPA	138		138
DUHAT	42	1 (agro)	41
TAMBIS	157		157
BANGKAGAN	214		214
BOGO	2		2
ANTIPOLO	116		116
DALAKIT	1		1
KUBI	5		5
BINUNGA	6		6
TALISAI	7		7
BAKAN	95		95
CALIANDRA	285	107 (agro)	178
NATIVE IPIL-IPIL	580		580
BADLAN	108		108
TOOG	124		124
UGHAYAN	430	17 (agro)	413
WHITE LAUA-AN	360		360

[3] For acronyms used see end of table.

MOLAVE	285	5 (agro)	280
OYAOY	300		300
GOGO	500		500
MALAIGMEN	150		150
TOTAL	**16,274**	**1,356**	**14,918**

FRUIT TREE SEEDLINGS			
MANGO	39		39
CASHEW	83		83
RAMBUTAN	57	25 (agro)	32
LANZONES	454	68 (agro)	386
CACAO	15	1 (agro)	14
ATIS	134	28 (agro)	106
AVOCADO	11		11
KAPE	389		389
POMELO	75		75
JACKFRUIT	28	5 (agro)	23
CALAMANSI	51	15 (agro)	36
DALANGHITA	260		260
SANTOL	237		237
TOTAL	**1,833**	**142**	**1,691**
GRAND TOTAL	**18,107**	**1,498**	**16,609**

Project Site: Calabanog

SPECIES OF TREE	NO. OF SEEDLINGS	USED/OUTPLANTED	REMAINING
NATIVE TIMBER SEEDLINGS			
ALMON	1,492		1,492
TAG-OSIP	459		459
BALAKBAKAN	168		168
RED LAUA-AN	1,797	10 (CI)	1,787
MAGUPANGA	165	6 (rainfo)	159
PALOMARIA	395	70 (GPH)	325
PAYONG-PAYONG	575	5 (CI)	570
NARRA	943	40 (GPH), 120 (LGU) & 260 (rainfo)	523
TABAW	155		155
RAIN TREE	400	298 (GPH)	102
BATIKULING	104	30 (LGU)	74
IGMEN	189		189
MABOLO	410	242 (GPH) & 5 (CI)	163
MAKOPA	141		141
DUHAT	217		217
WHITE NATO	100		100
AMUGIS	417	50 (rainfo)	367
ANTIPOLO	190		190
BAKAN	194		194
NATIVE IPIL-IPIL	476		476
BADLAN	113		113
TOOG	142		142
UGHAYAN	816		816
MOLAVE	179		179
OYAOY	1,129	139 (rainfo)	990

GOGO	531	5 (CI)	526
GUISOK	500		500
SALONG	193		193
UNIDENTIFIED	1,847		1,847
TOTAL	**14,437**	**1,280**	**13,157**
Fruit Tree Seedlings			
MANGO	66		66
CASHEW	16		16
RAMBUTAN	145	11 (agro) & 5 (CI)	129
LANZONES	548	11 (agro) & 15 (CI)	522
CAIMITO	66		66
TISA	16		16
CALAMANSI	61	10 (agro)	51
KAPE	300		300
DALANGHITA/DALANDAN	78	24 (agro)	54
SANTOL	54		54
TOTAL	**1,350**	**76**	**1,274**
GRAND TOTAL	**15,787**	**1,356**	**14,431**

Project Site: Idio

SPECIES OF TREE	NO. OF SEEDLINGS	USED/OUTPLANTED	REMAINING
NATIVE TIMBER SEEDLINGS			
ALMON	909	30 (CI)	879
TAG-OSIP	60		60
BALAKBAKAN	23		23
RED LAUA-AN	1,600		1,600
MAGUPANGA	102	5 (WA-RS) & 20 (CI)	77
NARRA	1,482	518 (rainfo), 200 (GPH) & 8 (CI)	756
TABAW	39		39
RAIN TREE	1,058	10 (WA-RS) & 370 (GPH)	678
BATIKULING	554	387 (rainfo) & 30 (CI)	137
MABOLO	734	225 (GPH), 63 (CI) & 51 (agro)	395
DUHAT	206		206
WHITE NATO	60		60
AMUGIS	347	20 (WA-RS)	327
ANTIPOLO	200		200
NATIVE IPIL-IPIL	410		410
BADLAN	105		105
TOOG	163	75 (WA-RS)	88
UGHAYAN	363		363
MOLAVE	1,170		1,170
OYAOY	1,771	912 (rainfo)	859
YAYAAY	71		71
BALETE (cuttings)	55		55
SALONG	100		100
MAGUILOMBOY	214		214
UNIDENTIFIED	499		499
TOTAL	**12,295**	**2,924**	**9,371**
FRUIT TREE SEEDLINGS			

MANGO	12		12
CASHEW	94		94
RAMBUTAN	187	164 (agro) & 19 (CI)	4
LANZONES	330	10 (agro) & 6 (CI)	314
JACKFRUIT	101	39 (agro) & 62 (CI)	-
MARANG	27	12 (agro) & 14 (CI)	1
CALAMANSI	50	20 (agro) & 17 (CI)	13
KAPE	370		370
POMELO	43	3 (agro)	40
CACAO	114	6 (CI)	108
GUYABANO	100	3 (agro)	97
TOTAL	**1,428**	**375**	**1,053**
GRAND TOTAL	**13,723**	**3,299**	**10,424**

Project Site: Alojipan

SPECIES OF TREE	NO. OF SEEDLINGS	USED/OUTPLANTED	REMAINING
NATIVE TIMBER SEEDLINGS			
ALMON	2,686		2,686
TAG-OSIP	835		835
BALAKBAKAN	51		51
RED LAUA-AN	764		764
NARRA	698	5 (agro)	693
TABAW	129		129
RAIN TREE	307		307
BATIKULING	60		60
MABOLO	1,534		1,534
BANGKAGAN	34		34
DUHAT	700		700
IGMEN	1,618		1,618
AMUGIS	369		369
ANTIPOLO	218		218
BAKAN	202		202
NATIVE IPIL-IPIL	36		36
BADLAN	200		200
MAYOBO	255		255
UGHAYAN	702		702
MOLAVE	391		391
OYAOY	15		15
GUISOK	90		90
WHITE LAUA-AN	403		403
SALONG	238		238
MAGUILOMBOY	1,040		1,040
UNIDENTIFIED	728		728
TOTAL	**14,303**	**5**	**14,298**
FRUIT TREE SEEDLINGS			
MANGO	28		28
GUYABANO	41	23 (agro)	18
RAMBUTAN	76	38 (agro)	38
LANZONES	475	38 (agro)	437
POMELO	27		27
CASHEW	200		200
CALAMANSI	50	5 (agro)	45
KAPE	227		227

SUNKIST	235	20 (agro)	215
SANTOL	425		425
TOTAL	**1,784**	**124**	**1,660**
GRAND TOTAL	**16,087**	**129**	**15,958**

GRAND SUMMARY

Nursery and Rainfo Component – Potting Production:

PROJECT SITES	POTTING PRODUCTION	# PLASTIC BAGS W/ SEEDLINGS	# PLASTIC BAGS W/O SEEDLINGS
SAN JUAN	19,255	18,107	1,148
CALABANOG	15,900	15,787	113
IDIO	14,622	13,723	899
ALOJIPAN	17,305	16,087	1,218
TOTAL	**67,082**	**63,704**	**3,378**

Nursery and Rainfo Component – Seedling Production:

PROJECT SITES	TOTAL # OF SEEDLINGS TRANSPLANTED IN PLASTIC BAGS		TOTAL	# OF SEEDLINGS OUTPLANTED		TOTAL	SEEDLINGS REMAINING IN NURSERY		TOTAL
	NTT	FT		NTT	FT		NTT	FT	
SAN JUAN	16,274	1,833	18,107	1,356	142	1,498	14,918	1,691	16,609
CALABANOG	14,437	1,350	15,787	1,280	76	1,356	13,157	1,274	14,431
IDIO	12,295	1,428	13,723	2,924	375	3,299	9,371	1,053	10,424
ALOJIPAN	14,303	1,784	16,087	5	124	129	14,298	1,660	15,958
CASTILLO[4]	5,042	-	5,042	4,945	-	4,945	97	-	97
TOTAL	**62,351**	**6,395**	**68,746**	**10,510**	**717**	**11,227**	**51,841**	**5,678**	**57,519**

[4] Pilot experiment in cooperation with Aklan State University.

Acronyms used:

NTT	Native timber tree seedlings
FT	Fruit tree seedlings
GPH	Green Philippine Highway
CI	Community individual
RS & rainfo	Rainforestation site
WA	Watershed area
agro	Agroforestry farm
LGU	Local Government Unit

App. 6

Dungganon **Addenda I and II to Accomplishment Report**

ACCOMPLISHMENT REPORT of the CoFoPa PROJECT IMPLEMENTATION
From March 2005 to September 2006
Livelihood and Training Component
by

Henry V. Dungganon, Upland Agriculturist

A. OUTPUTS

EXPECTED OUTPUTS	ACTUAL OUTPUTS FOR THE PERIOD	REMARKS
1. Purchases of 288 piglets	Purchased 278 piglets and distributed to target participants from 4 counterpart communities	Limited no. of piglets produced by the pig breeding households.
2. Purchases of 576 chicken	Purchased 552 chicken	24 heads to be purchased (UNDP Planned Budget) and 236 heads (replacement for the mortality) upon approval of realigned budget based on CoFoPa's originally planned budget.
3. Care and Management Medication and treatment of piglets and chicken	See Dr. Sanchez' Report for details	
4. Conduct training on: ➢ Launching of CoFoPa Project implementation ➢ Nursery establishment and management ➢ Sustainable agriculture and agroforestry (2 batches) ➢ Native chicken/pig raising training (2 batches) ➢ Project planning, implementing, monitoring and evaluation (2 batches) ➢ Business management and entrepreneurship ➢ Updating training on	Conducted at ASU Main Campus April 04, 2005 Conducted April 21-23, 2005, at ASU, Castillo Campus, Castillo, Makato, Aklan 1st Batch conducted July 14-16, 2005 and 2nd Batch conducted July 19-21, 2005, at same place 1st Batch conducted April 26-28, 2005, at San Juan/San Roque, Libertad, Antique 2nd Batch conducted May 03-05, 2005, at Idio, Sebaste, Antique 3rd Batch conducted May 11-12, 2005, at Alojipan, Culasi, Antique 1st Batch conducted Jan 28-30, 2006, Alojipan, Culasi, Antique 2nd Batch conducted March 24-	

EXPECTED OUTPUTS	ACTUAL OUTPUTS FOR THE PERIOD	REMARKS
planning, implementing, monitoring and evaluation ➢ Composting and making of organic fertilizer ➢ Simple financial bookkeeping and recording ➢ Updating on same ➢ Fire management, prevention and control (2 batches)	26, 2006, at Idio, Sebaste, Antique. 3rd Batch conducted March 30-31 and April 01, 2006, at San Roque, Libertad, Antique Conducted July 21-23, 2006, at Idio, Sebaste, Antique Conducted August 17-19, 2006, at Idio, Sebaste, Antique 1st Batch conducted August 29-31, 2006, at Idio, Sebaste, Antique 2nd Batch conducted September 01-03, 2006, at San Roque, Libertad, Antique 3rd Batch conducted September 8-10, 2006 at Alojipan, Culasi, Antique Proposed to be conducted on October 2006, delayed Proposed to be conducted on November 2006, delayed Proposed to be conducted on December 2006, delayed	
5. Native Pig Breeding Project: Purchase of 48 sows and 8 boars	47 sows and 7 boars had been purchased and distributed to breeding households in four Counterpart Communities	
6. Medication and Treatment	See Dr. Sanchez's report	

B. Project Implementation Status

ACTIVITIES		DATE/VENUE		PARTICIPANTS	REMARKS
Planned	Actual	Planned	Actual		
1.Purchase of stocks	Purchased 278 piglets, 552 chicken, 47 sows and 7 boars	May 2005 to September 2005	May to November 2005 and February to September 2006	Educators Henry, Richard, Alex, plus Dr. Sanchez and Liaison Officer	Limited stocks and their availability.

2. Medication and treatment	See Dr. Sanchez's report, chap. 1.3.3				

C. Problems, Opportunities and Issues Encountered

Problems or Difficulties in Project Implementation	How have these Problems/ difficulties been addressed?
1. Mortality of piglets upon distribution and in breeding households. Implementation of biogas facilities will not be realized. 2. High mortality of chicken upon delivery and distribution. 3. Delay of information about their fatal illness.	Regular treatment and medication done by PESCP's Veterinarian inspecting stock upon purchase. Budget for biogas facilities will be realigned to other facilities like: Shredding machine for solid waste management. Regular visits/ monitoring by PESCP's Vet. Develop chicken breeder within the community as a means of chicken raising.
Opportunities encountered in project implementation	How have these opportunities been taken advantage of?
1. LGU committed to support the project 2. Increasing number of consumers asking for the availability of fattened pigs.	1. Technical support from LGU realized 2. Market opportunity opened for the pig fatteners.

Activities to be completed:

1. Purchases of 11 piglets
2. Purchases of 260 chicken
3. Breeding project activities:
   - Purchases of 1 sow and 1 boar
4. Ongoing medication and treatment
5. Monitoring and follow-up of the project.
6. Conduct training on;
   1. Simple bookkeeping and recording
   2. Updating on simple bookkeeping and recording
   3. Fire prevention, management and control

Addendum I to Accomplishment Report on the CoFoPa Project Implementation

Status of Purchases
September 2006

BARANGAY/ TREATMENT	PROJECT						REMARKS
	# Pig Fattening		# Chicken		# Pig Breeding		
	Planned	Actual	Pl.	Act.	Pl.	Act.	
1. Alojipan, Culasi, Antique	72	72	144	119	12 sow and 2 boar	14 sows and 2 boars	25 chicken to be purchased upon approval of realigned UNDP budget. Two additional participants interested in pig breeding project.
2. Idio, Sebaste, Antique	72	70	144	257	12 Sow and 2 Boar	12 Sow and 2 Boar	Two project participants back-out from the project.
3. Calabanog/ Idiacacan, Pandan, Antique	72	73	144	133	12 Sows and 2 Boars	6 Sows and 1 Boar	One breeding household backed out from project.
4. San Juan/ San Roque, Libertad, Antique	72	63	144		12 Sows and 2 Boars	15 Sows and 2 Boars	11 piglets already assembled from breeding household. Chicken to be purchased upon approval of re aligned UNDP budget.
5. Quarantine				43			Casualties during quarantine
TOTAL	288	278	576	552	48 Sows and 8 Boars	47 Sows and 7 Boars	.

Addendum II to Accomplishment Report on the CoFoPa Project Implementation
Status of Implementation in Figures
September 2006

BARANGAY	NATIVE PIG FATTENING				REMARKS
	Distributed	Sold to Market	Butchered	Mortality	
1. Alojipan, Culasi	72	12	6	7	47 heads remaining
2. Idio, Sebaste	70	18	15	5	32 heads remaining
3. Calabanog/ Idiacacan, Pandan	73	21		8	34 heads remaining
4. San Juan/San Roque, Libertad	63	12	14	9	19 heads remaining
5. TOTAL	**278**	**59**	**35**	**29**	**132**

BARANGAY	CHICKEN RAISING				REMARKS
	Distributed	Sold to Market	Butchered	Mortality	
1. Alojipan, Culasi	119	14		38	Total # live chicken Sep 2006 is 344**.**
2. Idio, Sebaste	257			130	Total # live chicken July 2006 is 121.
3. Calabanog/Idiacacan, Pandan	133	9		102	Total # live chicken July 2006 is 132.
4. Quarantine	43			43	
4. TOTAL	**552**			**286**	**597** total # of live chicken in 4 counterpart communities July 2006.

BARANGAY	NATIVE PIG BREEDING				REMARKS
	Distributed	Sold to Market (Piglets)	Butchered	Mortality	
1. Alojipan, Culasi	14 Sows and 2 Boars	7 piglets	2 butchered	2 boars, 2 sows	
2. Idio, Sebaste	12 Sows and 2 Boars	13 piglets			
3. Calabanog/ Idiacacan, Pandan	6 Sows and 1 boar	2 piglets	2		
4. San Juan/ San Roque, Libertad	15 Sows and 2 Boar	9 piglets	2	1 boar	
5. TOTAL	**47 sows and 7 boars**	**31 piglets**	**4**	**3 boars and 2 sows**	

App. 7

Alabado **Post-assessment of Dulungan Nest Holes: Fledging in the Sebaste Area of the CPMR**

Dulungan Hornbill Post-Assessment Report, August 23-28, 2006

By
Alexander Alabado

List of Dulungan nest holes visited for verification of successful fledging, August 23-28, 2006. See also Introduction by A. Alabado in the main text above

Numbers	Tag number	Tree	Area	Owner	Team validator
1	429	Pili	Nimbong mountain	Jimmy Magsipoc	Group of Nonoy Mangga
2	399	Tol ang	Lampawon, Nimbong area	Panoy Mangga	Group of Nonoy Mangga
3	286	Lawaan	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
4	174	Bori	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
5	166	Gisok	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
6	483	Taloto	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
7	463	Balakbakan	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
8	544	Bagilomboy	Carit an. Nimbong area	Nonoy Magsipoc	Group of Nonoy Mangga
9	627	Tabaw	Carit an. Nimbong area	Nonoy Magsipoc	Group of Nonoy Mangga
10	686	Tabaw	Carit an. Nimbong area	Nonoy Magsipoc	Group of Nonoy Mangga
11	396	Abang-abang	Carit an. Nimbong area	Nonoy Magsipoc	Group of Nonoy Mangga
12	187	Libtog	Nimbong mountain	Nonoy Magsipoc	Group of Nonoy Mangga
13	6	Libtog	Lampawon, Nimbong Area	Nonoy Magsipoc	Group of Nonoy Mangga
14	608	Bagilomboy	Lampawon, Nimbong Area	Nonoy Magsipoc	Group of Nonoy Mangga
15	25	Balakbakan	Nimbong mountain	Nonoy magsipoc	Group of Nonoy Mangga
16	450	Oyaoy	Catmon mountain	Romeo Magsipoc	Group of Alex Alabado
17	38	Maganhop	Catmon mountain	Darry Lomugdang	Group of Alex Alabado and Richard Mangga

18	42	Tabao	Catmon mountain	Darry Lomugdang	Group of Alex Alabado and Richard Mangga
19	327	Henlagasi	Catmon mountain	Sitoy Lomugdang	Group of Richard Mangga
20	186	Lawaan	Catmon mountain	Sitoy Lomugdang	Group of Richard Mangga
21	578	Lawaan	Catmon mountain	Alejandro Domingo	Group of Richard Mangga
22	415	Lawaan	Catmon mountain	Alejandro Domingo	Group of Richard Mangga
23	579	Bagilomboy	Bacalan, Agpako area	Alejandro Domingo	Group of Richard Mangga
24	301	Olayan	Bacalan, Agpako area	Alejandro Domingo	Group of Richard Mangga
25	548	Libtog	Catmon mountain	Richard Mangga	Group of Richard Mangga
26	402	Balakbakan	Bacalan, Agpako area	Bert Placido	Group of Richard Mangga
27	515	Lawaan	Bacalan, Agpako area	Bert Placido	Group of Richard Mangga
28	412	To-og	Bacalan, Agpako area	E. Mangga	Group of Richard Mangga
29	599	Tabao	Bacalan, Agpako area	Ruel Francisco	Group of Richard Mangga
30	77	lawaan	Andayaw, Agpako Area	Edmund Operiano	Group of Richard Mangga
31	517	Bagilomboy	Tali ogbos, Camantra, Area	Albert Arias	Group of Romy Estolloso
32	323	Taloto	Tali ogbos, Camantra mountain	Albert Areas	Group of Romy Estolloso
33	265	Balakbakan	Tali-ogbos, Camantra area	Albert Areas	Group of Romy Estolloso
34	461	Baslayan	Tali ogbos, Camantra area	Paksing Magsipoc	Group of Romy Estolloso
35	262	Libtog	Kuyagbang, Camantra area	Paksing Magsipoc	Group of Romy Estolloso
36	649	Libtog	Kuyagbang, Camantra area	Paksing Magsipoc	Group of Romy Estolloso
37	445	Libtog	Kuyagbang, Camantra area	Paksing Magsipoc	Group of Romy Estolloso
38	61	Tabao	Camantra mountain	Ricky Antonio	Group of Romy Estolloso
39	386	Maganhop	Camantramountain	Albert Areas	Group of Romy Estolloso
40	588	Maganhop	Camantra mountain	Jimmy Magsipoc	Group of Romy Estolloso

41	526	Buyo buyo	Raya Bacalan, Tamarog area	Alex Estolloso	Group Of Erin Operiano
42	334	Naga	Bacalan, Tamarog area	Erin Operiano	Group Of Erin Operiano
43	625	Libtog	Hanggod sili, Tamarog area	Erin Operiano	Group Of Erin Operiano
44	78	Piyayo	Sapa bisto, Tamarog area	Edmund Operiano	Group Of Erin Operiano
45	120	lawaan	Igbaklay, Tamarog area	Romy Estolloso	Group Of Erin Operiano
46	383	Bagilomboy	Hanggod sili, Tamarog Area	Padoy Mangga	Group Of Erin Operiano
47	447	Paho	Tamarog mountain	Padoy Mangga	Group Of Erin Operiano
48	246	Bagilomboy	Tamarog mountain	Padoy Mangga	Group Of Erin Operiano
49	122	Libtog	Hanggod sili, Tamarog area	Elic Operiano	Group Of Erin Operiano
50	495	Balakbakan	Tamarog mountain	Elic Operiano	Group Of Erin Operiano
51	626	Balakbakan	Tamarog mountain	Elic Operiano	Group Of Erin Operiano

App. 8

Venus **Post-assessment of Dulungan Nest Holes: Fledging in four further Areas of the CPMR**

Post-assessment of Dulungan Nest Holes: Fledging in four further Areas of the CPMR

By

Julius Venus
Wildlife Educator

This is a summary report on the post-assessment of active Dulungan nest holes in areas aside from the large Alegre area (see report by A. Alabado et al. and Alabado above) where PESCP staff is active for a number of years. As in the Alegre report, due to financial constraints only a select number of nest holes could be validated.

We conducted our first post-assessment validation of active Dulungan nest holes in Brgy. Aglonok, Calinog, Iloilo, July 25 – 26, 2006. A team of three (1 Educator, 2 guides/nest hole owners) verified 6 out of 18 active Dulungan broods to have successfully fledged.

The second validation was in Brgy. Maadios, Pandan, Antique, involving 5 persons (1 Educator, 1 Forest Ranger, 3 guides/nest hole owners). Out of 29 active nest holes we found 6 to have successfully fledged.

In Brgy. Yawan, Ibajay, Aklan, the third validation by 5 members (1 Educator, 1 FR, 3 guides/nest hole owners) August 27 – 30, 2006, yielded 7 successful nests out of 7 . .
The last validation took place in Brgy. Maria. Cristina, Madalag, Aklan, September 1- 6, 2006. There was a total of 63 nest holes of which 10 were screened and found to have been successful. There were 5 persons involved in the validation (1 Educator, 1 FR, 3 guides/nest hole owners).

Here are the data obtained during the conduct of the Dulungan post-assessment nest hole validation; a hole is termed 'validated' when fledging can be ascertained:

PLACE	DATE	NO. of NEST HOLES VALIDATED	TAG NO.	TREE	NEST HOLE OWNER
Aglonok	July 20-28	6 of 6	1137	Balakbakan	Diony Dalumpines
			1129	Balakbakan	Diony Dalumpines
			1127	Balakbakan	Diony Dalumpines
			1107	Piyayo	Ernesto Benedicto
			1113	Piyayo	Ernesto Benedicto

PLACE	DATE	NO. of NEST HOLES VALIDATED	TAG NO.	TREE	NEST HOLE OWNER
			1113	Piyayo	Ernesto Benedicto
Maadios	Aug 22-25	6 of 6	272	Balasbas	Jimmy Antoy
			No tag # available	Lawaan	Jimmy Antoy
			No tag # available	Balakbakan	Narsing Paulino
			169	Balakbakan	Narsing Paulino
			No tag # available	Libtog	Rogelio Paulino
			No tag # available	Libtog	Rogelio Paulino
Yawan	Aug 27- 30	7 of 7	No tag # available	Bokbok	JR Tenorio
			No tag # available	Baranghal	JR Tenorio
			No tag # available	Lagasi	Longloy Tenorio
			No tag # available	Bugohansol	Longloy Tenorio
			No tag # available	Passi	Lumeriano Tayco
			No tag # available	Lagasi	Lumeriano Tayco

Note: The information on Brgy. Maria Cristina must be left out for want of within project communication that had broken down completely in the aftermath of the horrendous typhoon destroying all lines of tele-communication on 9 Dec 2006.

App. 9

Sanchez **Animals turned in to Rescue Facility Mag-aba and Stock existing before**

ANIMALS TURNED OVER BY DENR OFFICE (CENRO KALIBO/CULASI) UNDER THE AUTHORITY OF RA 9147 "WILDLIFE RESOURCES CONSERVATION AND PROTECTION ACT" PRESENTLY OR RECENTLY UNDER THE CARE OF PESCP WILDLIFE REHABILATATION FACILITIES

MAG-ABA

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
3 Colasisi (*Loriculus philippensis*		June 22, 2005		Subadult	Brgy. San Roque, Libertad, Antique	2 released (07– 21- 05) because of aggression & 1 still under rehabilitation (confiscated M. T. Ibabao, UNDP CoFoPa liaison officer). Latter released in San Roque 06-11-06.
Philippine Hawk Owl (*Ninox philippensis*)	101, PESCP inscription	July 19, 2005		Immature	Brgy Alojipan, Culasi, Antique	Confiscated A. Alabado, PESCP's wildlife edu.
3 Blue-crowned Racquet-tail (*Prioniturus discurus*)	110 and 102, PESCP inscription	July 31, 2005		Nestling	Brgy Abiera, Sebaste, Antique	Confiscated PESCP FR. F. Nabong & Rolly Fernando, PESCP CC in Brgy Abiera. 1 died of malnutrition and stress (07-31-05). 1 – preyed upon by Dog Tooth Cat Snake (06-30-06)
1 Changeable Hawk Eagle (*Spizaetus cirrhatus*)	24305	Sep. 1, 2003	Female	Juvenile	Brgy Laserna, Nabas, Aklan	Donated by Plaridel Sanchez IV. Released Aug 27, 2006
1 Crested Serpent-Eagle (*Spilornis cheela*)	108, PESCP inscription	June 16, 2004	Female	Juvenile	Municipality of Culasi, Antique	Donated
1 Grass Owl (*Tyto capensis*)		Jan 11, 2006		Adult	Brgy Sto Rosario, Pandan, Antique	Donated by Elixibar Mangilaya. Died 01-11-06
1 Crested Serpent-Eagle (*Spilornis cheela*)		Jan 14, 2006		Adult	Brgy Idiacacan, Pandan, Antique	Donated by Boy Super. Turned over to PAWD Region VI, classified as unsuitable for release

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
Leopard Cat (*Prionailurus bengalensis*)		Jan 20, 2006	Female	Adult	Sitio Calabanog, Brgy Idiacacan, Pandan, Antique	Released 01-28-06
2 Philippine Macaque (*Macaca fascicularis*)		Feb 8, 2006	Male and Female	Juvenile	Libertad, Antique	Classified as unsuitable for release, turned over to PAWD Region VI, 11-21-06
1 Leopard Cat (*Prionailurus bengalensis*)		Feb 23, 2006	Male	Subadult	Brgy Camancijan, Culasi, Antique	Released 2-28-06. Donated by R Solis, DA Culasi/S Doroteo, PESCP Liaison Offr, CoFoPa Project, Brgy Alojipan
1 Crested Serpent-Eagle (*Spilornis cheela*)	106 with PESCP inscription	Feb 23, 2006		Subadult	Brgy Bulanao, Libertad, Antique	Accepted by N Bagac, PESCP care taker
1 Emerald Pigeon (*Chalcophaps indica*)		Feb 28, 2006		Adult		Released 03-03-06
18 White-eared Brown-Dove (*Phapitreron leucotis*)		March 23, 2006		Adult	Brgy San Roque, Libertad, Antique	Accepted by M.T. Ibabao, Liaison Offr. and PESCP FR Staff
1 Changeable Hawk-Eagle (*Spizaetus cirrhatus*)	266002	March 25, 2006	Male	Subadult	Brgy Dionela, Pandan, Antique	Accepted by T. Kuenzel, Project Manager PESCP, released 04-01-06
1 Philippine Nightjar (*Caprimulgus manillensis*)		May 5, 2006		Adult	Brgy Centro Norte, Pandan, Antique	Donated by BIOCON Office. Released 05-06-06
1 Crested Serpent-Eagle (*Spilornis cheela*)		May 12, 2006	Female	Adult	Brgy Idacacan, Pandan, Antique	Caught by snare. Donated by Superintendent Alfon, PNP (Ret). Released 06-29-06 after 45 days of quarantine
4 White-eared Brown-Dove (*Phapitreron leucotis*)		May 19, 2006		Adult	Centro Este, Libertad, Antique	Donated by Jose Sualog. 1 bird turned over to PAWD Region VI, classified unsuitable for release, 11-21-06

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
1 Grass Owl (*Tyto capensis*)		May 20, 2006	Male	Adult	Brgy Sto Rosario, Pandan, Antique	Donated by Jacob Sanchez Jr. Died of maggot fly infestation
1 Grass Owl (*Tyto capensis*)		May 21, 2006	Male	Adult	Sitio Calabanog, Brgy Idacacan, Pandan, Antique	Dead on Arrival at Mag-aba facility.
1 Colasisi (*Loriculus philippensis*)				Adult	Brgy Bulanao, Libertad, Antique	Accepted by Nestor Bagac, PESCP care taker, Bulanao facility. Released 06-11-06
1 Grass Owl (*Tyto capensis*)		June 19, 2006		Adult	Culasi, Antique	Donated by DENR-CENRO Culasi. Released in Mag-aba 08-28-06.
1 Besra (*Accipiter virgatus*)		June 27, 2006		Immature	Libertad, Antique	Accepted by Joe Matinong, FR PESCP
1 Cinnamon Bittern (*Ixobrychus cinnamomeus*)		July 12, 2006		Adult	Brgy Centro Norte, Pandan, Antique	Donated by Ronnie Mateo. Released in Mag-aba 07-14-06
1 Crested Serpent-Eagle (*Spilornis cheela*)		Aug 02, 2006		Adult	Brgy Jinalinan, Pandan, Antique	Turned over to PAWD Region VI. Classified as unsuitable for release, 11-21-06.
1 Tarictic Hornbill (*Penelopides panini*)	102, PESCP inscription	Aug 15, 2006	Male	Adult	Brgy Jinalinan, Pandan, Antique	Accepted by J. Venus, WEO PESCP: Died of bacterial infection and tumor on carpal joint, 08-20-06
2 Turtles		Aug 23, 2006		Juvenile	Kalibo, Aklan	Turned in by DENR-CENRO Kalibo, released in Mag-aba 09-30-06.
2 Water Monitor Lizard (*Varanus bengalensis*)		---do--		--do--	--do--	--do--
3 Reticulated Python (*Python reticulatus*)		---do--		--do--	--do--	Released in Bulanao River 09-30-06

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
2 Colasisi (*Loriculus philippensis*)		Aug 27, 2006		Adult	Ibajay, Aklan	Accepted by M.T. Ibabao, FR PESCP. Released 11-05-06.
2 White-eared Brown-Dove		Sep12, 2006		Adult	Brgy Sta Ana, Pandan, Antique	Accepted by FRs on patrol. Released 11-05-06.
1 Reticulated Python (*Python reticulatus*)		Sep 21, 2006		Adult	Kalibo, Aklan	Turned in by DENR CENRO Kalibo. Released on Bulanao River 11-12-06.
1 Visayan Warty Pig (*Sus cebifrons*)		Oct 4, 2006	Male	Juvenile	Brgy Guia, Pandan, Antique	Donated by Josephine T Delemos
1 Blue-naped Parrot (*Tanygnathus lucionensis*)		Oct 12, 2006		Adult	Brgy Mag-Aba, Pandan, Antique	Donated by Rey Tamboong
1 Zebra Dove (*Geopelia striata*)		Nov 3, 2006		Adult	Brgy Union, Libertad, Antique	Released 11-10-06

BULANAO

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
Tarictic Hornbill (*Penelopides panini*)	0787	July 25, 2003	Male	Nestling	Sitio Burabod, Brgy. Callan, Sebaste, Antique	Donated
------ do -------	0772	July 31, 2003	Female	Fledgling	Brgy. Paz, Libertad, Antique	Donated to PESCP caretaker Nestor Bagac
------ do -------	0790	Sep 01, 2003	Male	Adult	Municipality of Tibiao, Antique	Donated by Plaridel Sanchez IV
------ do -------	0788	Sep 01, 2003	Female	Juvenile	Brgy. Carmen, Pandan, Antique	Donated by Plaridel Sanchez IV

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
1 Tarictic Hornbill (*Penelopides panini*)	104, with PESCP inscription	May 27, 2005	Male	Nestling	Brgy Idio, Sebaste, Antique	Transferred to Bulanao Facility (06 – 29 – 05). Received by PESCP Forest Ranger (F. Nabong)
2 Tarictic Hornbill (*Penelopides panini*)	110 109, both with PESCP inscription	June 7, 2005 -- do --	Male Female	Nestling Nestling	Sitio Malumpati, Brgy Guia, Pandan, Antique ------- do ------	Confiscated by PESCP's Forest Monitor A. Ebon. Transferred to Bulanao (06 – 29- 05) ------------------- do --------------------
1 Tarictic Hornbill (*Penelopides panini*)		Aug 19, 2005	Male	Immature	Brgy Bacalan, Sebaste, Antique	Accidentally breaking free through wire mesh (08 – 19 – 05). Donated to PESCP by Forester Sonny Galluego
2 Tarictic Hornbill (*Penelopides panini*)	0796 0792	Dec 02, 2005 --do--	Female Male	Juvenile --- do ---	Sitio Tabay, Brgy Patria, Pandan, Antique --- do -----	Confiscated by Angel Tamboong, Forest Ranger BIOCON --------- do -------
1 Tarictic Hornbill (*Penelopides panini*)	101, with PESCP inscription	Jan 18, 2006	Male	Juvenile	Brgy Idio, Sebaste, Antique	Died of unknown cause 04-01-06
1 Tarictic Hornbill (*Penelopides panini*)	102, with PESCP inscription	Aug 15, 2006	Male	Adult		
1 Tarictic Hornbill (*Penelopides panini*)	0793	June 2005	Male	Juvenile	Bangan, Aklan	Died from mate aggression
1 Tarictic Hornbill (*Penelopides panini*)	108, with PESCP inscription	Aug 3, 2006	Female	Juvenile	Brgy Sta Cruz, Pandan, Antique	Donated by Allen Tungiua, accepted by J. Venus, H. Dungganon, PESCP Educators

SIBALIW RESEARCH STATION

Species	Ring Number	Date of Arrival	Sex	Age	Origin	Remarks
Writhed-billed Hornbill (*Aceros waldeni*)	0033	June 19, 1999	Female	Fledgling	Brgy Idiacacan, Pandan, Antique	
------ do ------	0034	June 19, 1999	Male	Fledgling	---- do ----	Predated by Python 06-06
------ do ------	0035	------ do ------	Female	Fledgling	Sitio Banawang, Brgy Napuid, Pandan, Antique	Donated
----- do ------	0036	------ do ------	Female	Fledgling	----- do ------	Donated
----- do ------	0059	June 4, 2002	Female	Fledgling	Brgy Alegre, Sebaste, Antique	Donated
Tarictic Hornbill (*Penelopides panini*)	0031	June 23, 2003	Female	Fledgling	Brgy Botbot, Pandan, Antique	Released 04-27-06
------ do ------	0033	------ do ------	Male	Fledgling	Sitio Calabanog, Pandan, Antique	Donated
------ do ------	0761	June 23, 2003	Female	Fledgling	Brgy Botbot, Pandan, Antique	Donated
------ do -------	0770	June 23, 2003	Male	Fledgling	Brgy Botbot, Pandan, Antique	Released 04-27-06
------ do -------	0785	March 16, 2003	Male	Fledgling	Sitio Malumpati, Brgy Guia, Pandan, Antique	Donated
------ do -------	0786		Female	Fledgling		Donated

Note: Animals unsuitable for release sent to DENR PAWD Region 6, Iloilo City, received there by PAWD Deputy Director Damaso Fuentes.

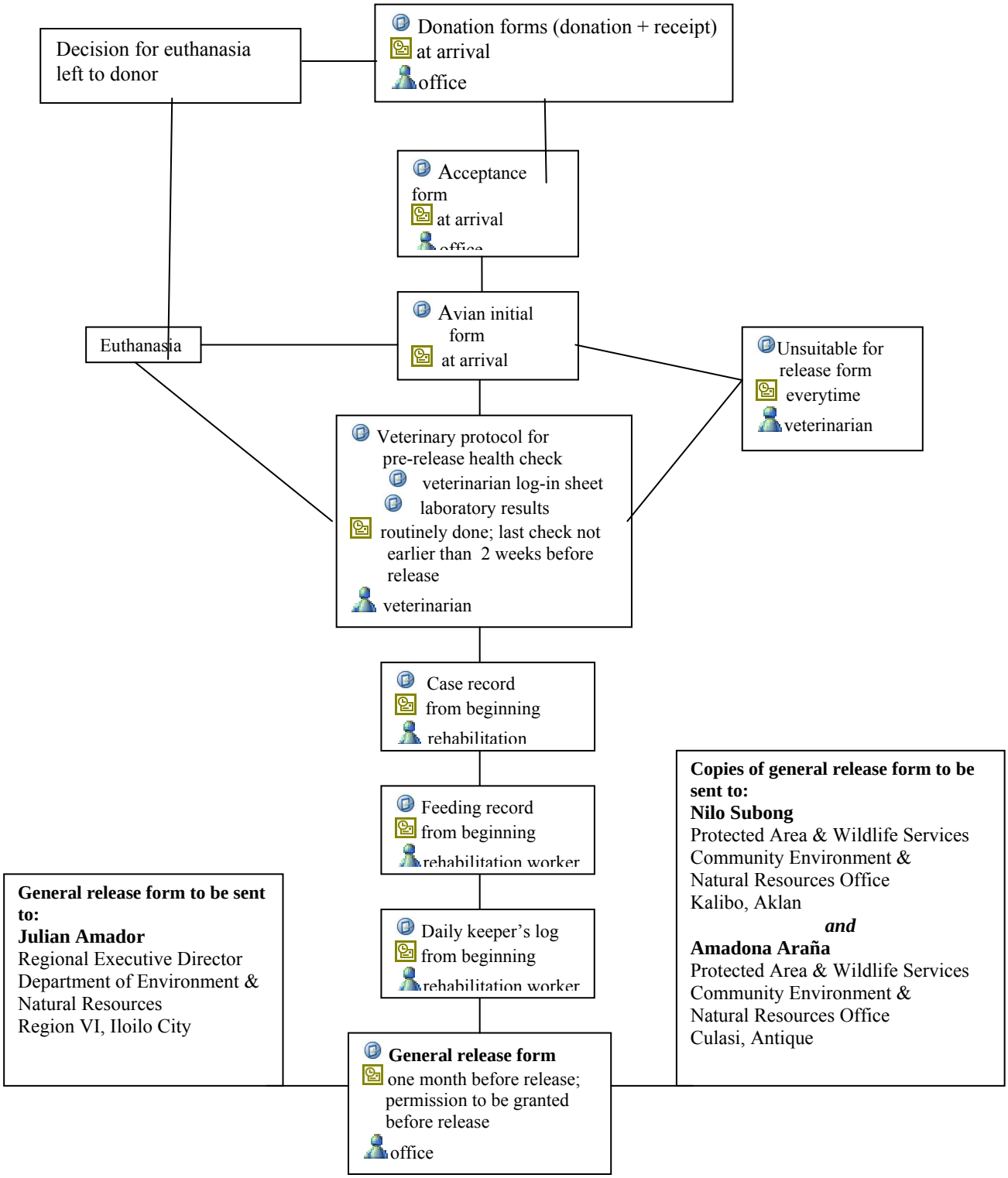
App. 10

Sanchez — **Wildlife Flow Chart and Decision on Destination of Wildlife turned in to PESCP Rescue Facilities**

PHILIPPINE ENDEMIC SPECIES CONSERVATION PROJECT

What to do before releasing a bird?

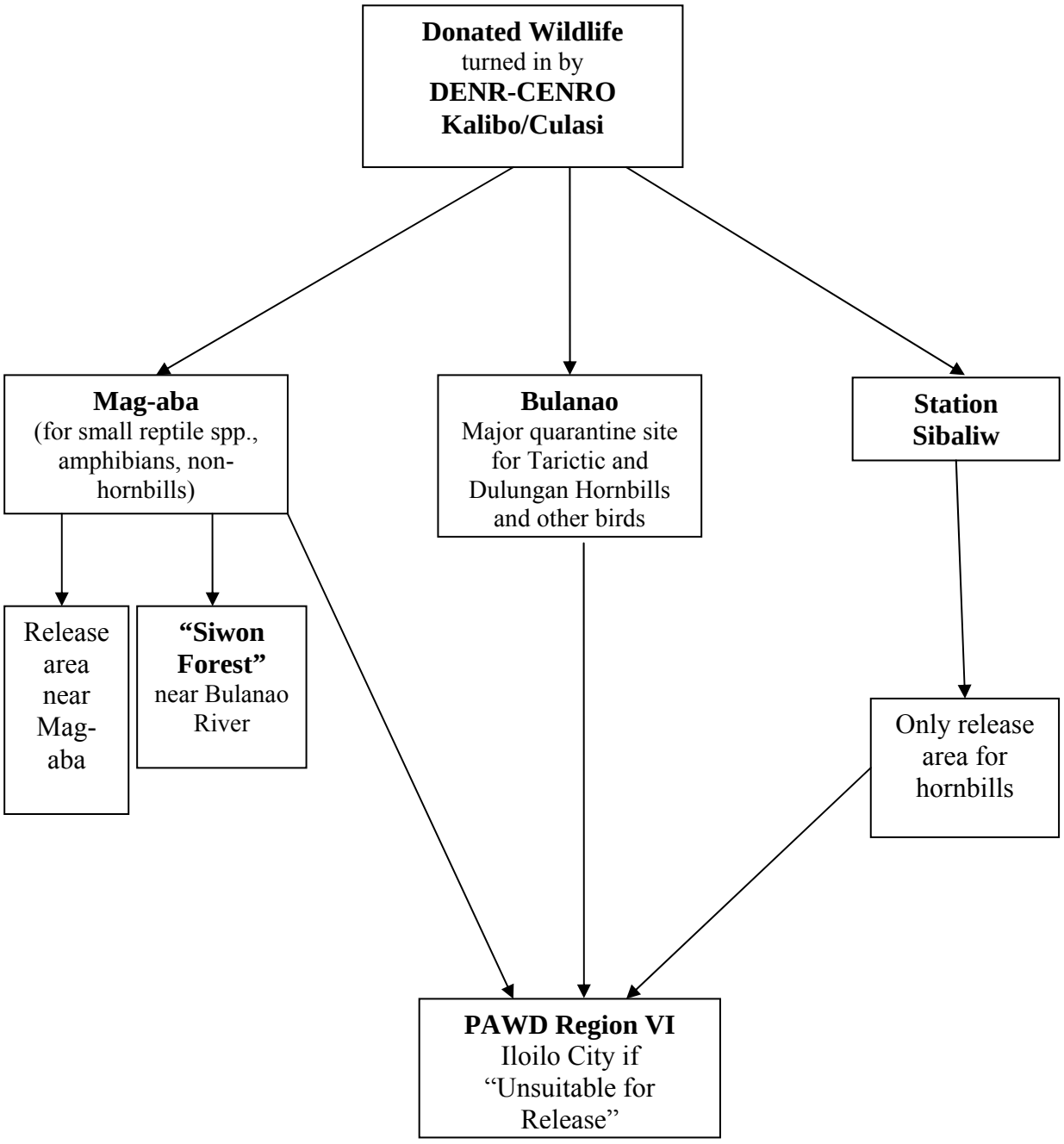
This checklist informs all PESCP staff what forms have to be filled in, when to do it and by whom.



Exception:
In accordance with DENR order DAO 97-17, stating "Recently caught animals may be released immediately to the capture site upon certification by the designated/authorized Veterinarian that the same is in good health", wildlife that has been captured and held for a minimum amount of time may be released at the capture site if there is low probability that the animal has contracted an illness through human contact. (For example, a bird that is exhausted after being caught in a storm may be released at the location in which it was found on the following day if its condition appears healthy.)

Wildlife flow including release back to the wild in 3 PESCP wildlife rehabilitation facilities:

„WILDLIFE FLOW CHART"



Note:

* Mag-aba facility caters for injured and sick birds / other wildlife for rehabilitation.

* "Siwon Forest" beside Bulanao River designated release area for large Pythons at least 4-5 km from the nearest housing and farming community. Reptiles should preferably be released near the river banks to replace their loss of body fluids (pers. comm. M. Gaulke, E. Curio).

* Donated wildlife is accompanied by their respective donation form and other records to be filled in by a rehabilitation worker.

* Wildlife classified as "Unsuitable for Release" to be turned over to PAWD Region VI in Iloilo City. A transport permit is provided by the latter, upon close coordination with CENRO Kalibo or CENRO Culasi, whatever applies. Transfer to be facilitated by offices of

CENRO – Kalibo --- through Nilo Subong, PAWCZMS Officer

CENRO – Culasi --- through Amadona Raña, PAWCZMS Officer