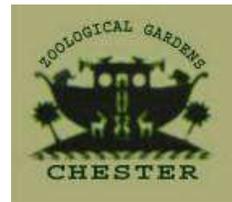




In-Situ  
Conservation Project  
Phase VI

# Technical Progress Report

## September-December 2008



By



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With contributions from Peter Widmann  
Puerto Princesa City, Palawan, Philippines  
February 2009

## TECHNICAL PROGRESS REPORT

**COUNTRY: PHILIPPINES**

**PROJECT TITLE: PHILIPPINE COCKATOO CONSERVATION PROGRAM**  
**In-situ Conservation Project Phase VI**

**PROJECT DURATION: September-December 2008**

**PROJECT SITE: Palawan, Philippines**

**PROJECT COOPERATORS:**

**Department of Environment and Natural Resources (DENR)**  
**Municipal Government of Narra, Palawan, Philippines**  
**Municipal Government of Dumarán, Palawan, Philippines**  
**Municipal Government of Rizal, Palawan, Philippines**  
**Culasian Barangay Government, Rizal, Palawan, Philippines**  
**Local Protected Area Management Committees (LPAMC)**  
**Sagip Katala Movement-Narra Chapter, Inc. (SKM-NC, Inc)**  
**Sagip Katala Movement-Dumarán Chapter (SKM-DC)**  
**Palawan Council for Sustainable Development Staff (PCSDS)**  
**Polillo Islands Biodiversity Conservation Foundation, Inc.**  
**Concerned agencies and authorities**

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>ACKNOWLEDGMENTS .....</b>	<b>9</b>
<b>ACRONYMS.....</b>	<b>10</b>
<b>LIST OF TABLES AND FIGURES.....</b>	<b>11</b>
<b>INTRODUCTION .....</b>	<b>13</b>
THE PHILIPPINE COCKATOO CACATUA HAEMATUROPYGIA .....	13
OBJECTIVE OF THE PHILIPPINE COCKATOO CONSERVATION PROGRAM .....	13
PROGRAM STRATEGY .....	13
DELIVERABLES.....	14
<b>DESCRIPTION OF PROJECT SITES .....</b>	<b>16</b>
RASA ISLAND, NARRA, PALAWAN.....	16
DUMARAN ISLAND, DUMARAN, PALAWAN .....	16
CULASIAN MANAGED RESOURCE PROTECTED AREA (CMRPA), RIZAL, PALAWAN .....	17
PATNANUNGAN, POLILLO GROUP OF ISLANDS, QUEZON.....	18
<b>METHODOLOGIES.....</b>	<b>19</b>
<b>RESULTS AND PROGRESS .....</b>	<b>21</b>
OUTPUT 1: CONSERVATION OF COCKATOO POPULATION ON RASA ISLAND WILDLIFE SANCTUARY (RIWS), NARRA CONTINUED .....	21
<i>Wardening scheme</i> .....	21
<i>Capacity building of the Protected Area Management Board (PAMB) of the Rasa Island Wildlife Sanctuary (RIWS)</i> .....	22
<i>Conservation Education</i> .....	23
<i>Ecotourism</i> .....	23
OUTPUT 2. CONSERVATION OF COCKATOO POPULATION ON DUMARAN ISLAND, DUMARAN CONTINUED .....	24
<i>Wardening scheme</i> .....	24
<i>Conservation education</i> .....	24
<i>Capacity building</i> .....	25
<i>Constraints and measures taken</i> .....	25
OUTPUT 3. CONSERVATION OF COCKATOO POPULATION IN CULASIAN MANAGED RESOURCE PROTECTED AREA (CMRPA), RIZAL CONTINUED .....	26
<i>Wardening scheme</i> .....	26
<i>Capacity building</i> .....	26
<i>Constraints and measures taken</i> .....	26
OUTPUT 4. RESEARCH ON CONSERVATION-RELATED TOPICS ON BIOLOGY OF PHILIPPINE COCKATOO CONDUCTED .....	27
<i>Systematic collection of data on breeding and feeding biology and population dynamics of Philippine cockatoo continued</i> .....	27
<i>Floral inventories in Rasa and Dumaran and phenological research continued</i> .....	33
<i>PCCP in Patnanungan, Polillo</i> .....	33
<i>Calamianes Project Cooperation with FFI-Philippines Program</i> .....	34
<i>Constraints and measures taken</i> .....	34
OUTPUT 5. KATALA INSTITUTE FOR ECOLOGY AND BIODIVERSITY CONSERVATION FURTHER DEVELOPED .....	34
<i>Philippine Freshwater Turtle Conservation Project (PFTCP)</i> .....	35
<i>Philippine Cockatoo</i> .....	36
<i>Constraints and measures taken</i> .....	38
<b>OTHER HIGHLIGHTS .....</b>	<b>39</b>
10 <sup>TH</sup> PCCP ANNIVERSARY CELEBRATION .....	39
4 <sup>TH</sup> PHILIPPINE BIRDFEST AND BIRD CONSERVATION FORUM.....	40

MAYOR OF NARRA REPRESENTS RASA IN LONDON .....40  
PALAWAN PANGOLIN STUDIES .....40  
PAPERS PUBLISHED, SUBMITTED FOR PUBLICATION TO RELEVANT JOURNALS, RELEVANT REPORTS AND MEDIA  
MILEAGE.....40  
OTHER REMARKABLE RECORDS/EVENTS .....42  
SUMMARY OF RELEVANT SEMINARS, EXPEDITIONS AND WORKSHOPS ORGANIZED AND ATTENDED.....43  
EQUIPMENT STATUS.....43  
**IMPLICATIONS FOR FURTHER WORK .....43**  
**PLANNED TARGETS AND ACTIVITIES FOR THE NEXT REPORTING PERIOD.....44**  
**WORKSHEET .....46**  
**LITERATURE .....51**  
**ANNEX .....52**

## EXECUTIVE SUMMARY

### **Output 1: Conservation of cockatoo population on Rasa Island, Narra continued**

1. Flashing with iron sheets to six identified nest trees was completed. Other iron sheets which need to be replaced were done too. This is in preparation for the coming breeding season and to protect nest sites from predators especially monitor lizards. Seven artificial nest boxes (ANBs) were installed.
2. Indications of nest occupation were noted since September. Some indications observed were cleaning and deepening of nest holes, cut twigs and branches and some feces on the ground below the nest tree.
3. Seven additional potential nests are monitored along with the existing 56 identified nest trees.
4. Regular patrol and monitoring by wardens resulted in the documentation of illegally cut mangroves used to establish a shanty by a claimant on Rasa and removal of unauthorized seaweed farming along the boundaries of the wildlife sanctuary.
5. Wardens rescued Green turtle *Chelonia mydas* hatchlings kept illegally. After gaining stability, nine were released to the seas in Narra. In another case, wardens safely monitored a nesting ground in Antipuluan coast of the same turtle species where 49 hatchlings were successfully released.
6. Two Protected Area and Management Board (PAMB) meetings were conducted within the reporting period. On the agenda were the imposition of sanctions to concerned individuals who deliberately injured a cockatoo while foraging on the mainland and the approval of workplan for 2009.
7. Information campaigns on mainland Narra were continued. Highlighted activity was the PCCP's participation to the Palay Festival in October where various fun activities were organized for youth and adults alike.
8. Birders from neighboring countries like Taiwan, Japan and Thailand joined Filipino birders on a KFI-sponsored visit to Rasa after the 4<sup>th</sup> Philippine Birdfest in Puerto Princesa City.

### **Output 2: Conservation of cockatoo population on Dumaran Island, Dumaran continued**

9. Seven nest trees were flashed with iron sheets within the period. These were nest of Palawan hornbill, Blue-headed racquet-tail and Hill myna.
10. Permanent plots for phenological study on food and nest providing trees in the two cockatoo reserves were completed
11. Wardens continued to investigate and search for roost sites and nest trees all around Dumaran Island. There are some indications of potential ones which need to be closely monitored.
12. A young Palawan hornbill which was injured by a gecko on the right eye was rescued by wardens, treated and released after recovery.
13. A new camp and nursery site had been established at the buffer of So. Omoi Cockatoo Reserve.
14. The Local Protected Area Management Committee (LPAMC) met on 12<sup>th</sup> November where the workplan for 2009 was approved and among others deliberated on persistent kaingin farmers that endanger the integrity of the two cockatoo reserves.

15. The move of the Municipal Environment and Natural Resource Officer to request kaingin farmers to register and get license from barangay council was rejected by the LPAMC.

**Output 3: Conservation of cockatoo population in Culasian Managed Resource Protected Area (CMRPA), Rizal continued**

16. Five cockatoos were observed in adjacent mangrove area in Culasian. One was observed with a blackish string/band on the left leg. Four other individuals were regularly observed near nest tree in Balukanad area inside the CMRPA, believed to include those two hatchlings from this year.
17. Characterization of 76 nest trees from Tagbalugo, CMRPA area was completed. Thirty-six parameters used by KFI in nest characterization were obtained.
18. Illegal activities e.g. cutting of hardwood and valuable trees and mangrove cutting were observed by wardens and reported to concerned authorities; however, action or inaction to reported cases continue to be discouraging.
19. Threats to security of our wardens and Field Officer increased resulting to restrained activities and project slow down in the area.
20. No LPAMC meeting was convened within the period for varied reasons.

**Output 4: Research on conservation-related topics on biology of Philippine cockatoo conducted**

21. Counts at the traditional roost site in Narra yielded to the highest counts since start of the project in June with 205 individuals and 199 in October. Since June, roost counts were never below 180 individuals.
22. On mainland Narra, the population trend is also upwards based on maximum numbers counted in particular at two monitoring stations (Marcelo and Borbon areas). A new volunteer is in place to monitor arrival and exit counts in Borbon area. High arrival and exit counts ranging from 41-100 individuals were observed in late October for a week.
23. Frequented Narra mainland sites were mainly characterized by presence of *Moringa oleifera*, a favorite local food source for the cockatoos and other birds.
24. We continue to monitor rainfall in all sites. On Rasa, it had been wetter compared to 2007 rainfall from September to December (508 vs. 741.2mm)
25. A total of 32 nest trees were occupied on Rasa this year with 78 recorded eggs. Breeding success is 63% with 49 fledglings banded. Out of 27 pairs with hatchlings, 21 pairs had successful fledglings.
26. In Dumaran, several sightings of cockatoos at the Poblacion area in Dumaran Island in particular in vast mangrove areas near pier were reported within the period. Other sightings from other areas were also surveyed and visited.
27. Daily counts at the traditional roost site in Lagan, Dumaran recorded 23 individuals in September; however this has dropped as new breeding season approaches and birds stay at their nest sites.
28. We recorded 10 eggs in Dumaran this year; however only two birds successfully fledged.

29. Floral assessment in Dumaran was completed in October 2008. Twelve plots and 15 plots were established in Manambaling Protected Area and Omoi Cockatoo Reserve, respectively.
30. In Polillo, we are monitoring seven cockatoo nest trees in all; five of which from municipality of Patnanungan and two from Burdeos.
31. Kaingin and mangrove cutting are persistent in Polillo. They continue to endanger the already limited cockatoo nest trees in the area. Legal complaints for few cases are in progress.
32. The Calamianes project in cooperation with Fauna and Flora International has been much further delayed due to PCSDS changing requirements for issuance of SEP clearance among others.

**Output 5: Katala Institute for Ecology and Biodiversity Conservation (KIEBC) further developed**

33. Major activities for this period were concentrated on improving enclosures of turtles (see below) and bird areas. Landscaping activities were limited due to three major reasons: (1) inaccessibility of access road to allow heavy equipment to get in; (2) unavailability of heavy equipment and (3) heavy rains during the period.
34. Two bird caretakers and the turtle caretaker attended the Zookeeper Workshop and Training in Puerto Princesa. Their participation was sponsored by Chester Zoo, UK.
35. As of December 31, 2008 KIEBC holds 34 *Siebenrockiella leytensis*, 19 *Cuora amboinensis*, 11 *Cyclemys dentata*, and 1 *Dogania subplana*.
36. Enclosures were subdivided and individuals regrouped to encourage mating while at the same time reducing aggression among male Philippine Forest Turtles.
37. KFI is a formal collaborator and research partner of "The Comparative Biogeography and Conservation of Philippine Vertebrates" (CBCPV) project through the Herpwatch Philippines research consortium.
38. Blue that has feather plucking problems were treated with several measures including transferring to an isolation cage, application of aloe vera, lemon grass juice and neck collar. Diet was diversified and enclosure enhancements were done. The latest attempt is to put Blue together with Pinky Pan in the bigger cage in the hope that its psychological problems could be diverted while sharing the enclosure with a new individual. So far, no problems were encountered but feathers are still not growing.
39. All the remaining cockatoos are healthy and stable.

**Other highlights**

40. Philippine Cockatoo Conservation Program (PCCP) celebrated its 10<sup>th</sup> year anniversary by honoring its wildlife wardens and local partners in December. Senator Juan Miguel Zubiri, KFI President led the recognition and honors.
41. The celebration kicked off with a radio guesting of Sen. Zubiri, then followed by a successful press conference attended by all project partners and supporters. There was launching of two publications: (1) PCCP anniversary booklet and (2) scientific compilation of researches in Palawan. The new website of the Katala Foundation was as well launched during the celebration on 12<sup>th</sup> December 2008. Photo exhibit followed immediately.

42. Rasa Island Wildlife Sanctuary (RIWS) was represented by former Narra Mayor Lucena Demaala in London during the World Travel Market in November where the book "Birdwatching in the Philippines Volume 1" was officially launched.
43. Five major publications were produced within the period. These included the article on the ten-years programme implementation of PCCP published in Birding Asia in December, the anniversary publication – PCCP @ 10. The compilation book includes six new articles written by PCCP staff. A number of other articles and press releases written by staff and program affiliates were published this period.
44. One Philippine cockatoo was sighted by a visiting bird photographer in Cove 2, Lagen Island on 03 September 2008. The island was the translocation site in 2007.
45. Ten second-hand binoculars were donated to KFI by the Wild Bird Club of the Philippines in September.
46. There is the urgency to replace the printer and desktop computer at PCCP main office. All vehicles went under major repairs and maintenance.

## ACKNOWLEDGMENTS

We are grateful to the Loro Parque Fundación (LPF), Tenerife, Spain for incessantly supporting the Philippine Cockatoo Conservation Program and to the Partner Donors: North of England Zoological Society/Zoological Gardens Chester (NEZS), Zoologische Gesellschaft für Arten- und Populationsschutz (ZGAP, incl. Fonds Fuer Bedrohte Papageien and Strunden-Papageien-Stiftung), Conservation des Espèces et Des Populations Animales (CEPA), and ZooParc de Beauval for their trust and generous support. Particular thanks to Wolfgang Kiessling, President LPF, Dr David Waugh, Director LPF, Dr. Roger Wilkinson, Head of Conservation and Science, North of England Zoological Society (NEZS)/Zoological Gardens Chester, Roland Wirth, President ZGAP, Dr. Jean-Marc Lernoald, President CEPA and Marc Boussekey, European Coordinator of the PCCP and Secretary CEPA and for facilitating the flow of funds, communication and support from Europe.

The PCCP is indebted to the real players of the project: the wardens and volunteers from Narra, Dumaran, Rizal and Polillo for their dedication, hardwork and commitment. Without them, the project would not have reaped the good harvests.

To the honorable Mayor of Narra, Atty. Clarito D. Demaala Jr. and his wife and members of the municipal council and officials. Special gratitude goes to PAMB members, Narra for their vigilance and ready attention on Rasa. Equally worth the gratitude is the support of Dumaran Mayor David G. Aurello, MPDO Agnes Padul, R. Aurello, and all Dumaraños. And lastly to Rizal Mayor Claire L. Degillo and her husband Samson, as well as Bgy. Captain Reynaldo B. Ong of Culasian for their cooperation. To Bgys. Candawaga and Ransang.

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To all visiting tourists, foreign and local, for the generous donations given to the project. Thanks also to the SKM officers and members.

## ACRONYMS

CE	Conservation Education
CENRO	Community Environment and Natural Resources Office(r)
CEPA	Conservation des Espèces et Des Populations Animales
CMRPA	Culasian Managed Resource Protected Area
DENR	Department of Environment and Natural Resources
IUCN	International Union for the Conservation of Nature and Natural Resources
KEEC	Katala Environmental Education Center
KFI	Katala Foundation, Inc.
KIEBC	Katala Institute for Ecology and Biodiversity Conservation
LGU	Local Government Unit
LPAMC	Local Protected Area and Management Committee
LPF	Loro Parque Fundación
MENRO	Municipal Environment and Natural Resources Officer/Office
MOA	Memorandum of Agreement
PA	Protected Area
PAMB	Protected Area Management Board
PAWB	Protected Areas and Wildlife Bureau
PASu	Protected Area Superintendent
PCCP	Philippine Cockatoo Conservation Program
PCSD(S)	Palawan Council for Sustainable Development (Staff)
PENRO	Provincial Environment and Natural Resources Office
PFTCP	Philippine Freshwater Turtle Conservation Program
PNP	Philippine National Police
PWRCC	Palawan Wildlife Rescue and Conservation Center
RA 9147	Republic Act 9147 otherwise known as the Wildlife Protection Act
RIWS	Rasa Island Wildlife Sanctuary
SDENRO	Special Deputy Environment and Natural Resources Officer
SKM	Sagip Katala Movement
TWG	Technical Working Group
WPU	Western Philippines University
ZGAP	Zoologische Gesellschaft für Arten- und Populationsschutz

## LIST OF TABLES AND FIGURES

### LIST OF TABLES

- Table 1 Conservation education campaigns, September - December 2008, Philippine Cockatoo Conservation Program
- Table 2 Characterization of artificial nest boxes (ANBs) and sites at Rasa Island Wildlife Sanctuary, Narra, Palawan, 2008

### LIST OF FIGURES

- Figure 1. Map of the Philippines indicating sites of the Philippine Cockatoo Conservation Program for comprehensive nest protection: 1. Culasian Managed Resource Protected Area (proposed), Rizal; 2. Rasa Island, Narra; 3. Omoi and Manambaling Cockatoo Reserves, Dumarán; 4. Patnanungan Island, Polillo group of islands, Quezon. Recent sightings of cockatoos: A) eastern Samar, B) Sulu archipelago.
- Figure 2. Vegetation and land-use of Rasa Island, Palawan, Philippines.
- Figure 3. Omoi Cockatoo Reserve (left) and Manambaling Cockatoo Reserve (right) cover the last forest patches on Dumarán Island.
- Figure 4. Vegetation, land use and boundaries of Culasian Managed Resource Protected Area, Rizal, Palawan.
- Figure 5. Vegetation and land use of Patnanungan Island (Hampson et al., 2002). Light green: coconut, dark green: forest, blue: mangrove, orange ricefield, light orange: cornfield, olive: grassland, grey: settlement
- Figure 6. Green turtle hatchlings documented and were released in Antipuluan shore in the presence of community members and officials.
- Figure 7. Children enjoyed the interactive games and lectures conducted by KFI during the 2008 Palay Festival in Narra.
- Figure 8. PCCP Operations Coordinator Siegfred Diaz gave the orientation to visiting birders in September. Birders also went to Malatgao swamp area guided by PCCP staff.
- Figure 9. Monthly roost counts of Philippine cockatoos at the traditional roost site, Rasa Island, Palawan.
- Figure 10. Cockatoo counts on the traditional roosting site on Rasa Island during the month of August (after breeding season) from 1998 to 2008.
- Figure 11. Maximum numbers of Philippine cockatoos counted on the mainland opposite Rasa Island on a single day.
- Figure 12. Monthly maximum and minimum numbers of Philippine cockatoos roosting at the traditional roost site in So. Lagan, Bgy. San Juan, Dumarán, Palawan.
- Figure 13. Illegal mangrove cutting is rampant in the Polillo Islands. This was taken by the team who documented the cut trees in Balibago, Bgy. Patnanungan Norte.
- Figure 14. CENRO/PASu Tactay inspected the nursery at the KIEBC during his visit.
- Figure 15. Big turtle enclosures were enhanced with more plants and subdivided to encourage mating and reduce aggression among male Philippine Forest Turtles.
- Figure 16. Turtle researcher DAcosta during the interviews she conducted in Roxas, Palawan in October.
- Figure 17. Movements Blue's isolation cage was fixed and for some time we observed growing feathers on her naked breasts.

- Figure 18. Dr. Rebong of PWRCC tried installing a neck collar to Blue however; this as well did not succeed as collar was destroyed in five minutes.
- Figure 19. Pinky Pan and Blue in their hanging aviary.
- Figure 20. Weights of four Philippine cockatoos at KIEBC from August – December 2008.
- Figure 21. Former Mayor of Narra Lucy Demaala successfully promoted Rasa Island Wildlife Sanctuary during the World Travel Mart in London.
- Figure 22. KFI/PCCP booth at the PSU Biodiversity Week in Puerto Princesa City.

## **LIST OF ANNEXES**

- Annex 1. Photo documentation of the PCCP 10<sup>th</sup> Anniversary Celebration

## INTRODUCTION

### **The Philippine cockatoo *Cacatua haematuropygia***

The Philippine Cockatoo or red-vented cockatoo *Cacatua haematuropygia* is restricted to lowland forest areas and mangroves in the Philippines. Formerly, it could be found all over the archipelago (Dickinson *et al.* 1991;). Only in the last decades a rapid decline set in, which brought the species to the brink of extinction (e.g. Boussekey 2000a; Lambert 1994). The reasons for the decline of the populations are (e.g.; Collar *et al.*, 1999; Lambert 1994; Widmann *et al.* 2001):

- Habitat destruction, particularly in respect of nesting and food providing trees.
- Persecution as crop pest.
- Poaching for pet trade.
- Potential diseases caused by the introduction of captive birds in the range of wild populations.
- Tropical storms and typhoons

Habitat destruction and poaching are the most important factors threatening the Philippine cockatoo.

Rasa Island, our main project site, presently is the area with the worldwide highest natural density of Philippine cockatoo with at least 200 birds on 8.3 km<sup>2</sup>.

Dumaran Island in northern Palawan holds likely the second-most important cockatoo population in the Palawan Faunal Region, after Rasa. Its mangroves are widely intact, but the lowland forests are heavily degraded.

Culasian in Rizal is one of the main source areas for the illegal wildlife trade in the Philippines. It is outstanding for its still high density of other cavity nesters like hill myna *Gracula religiosa* or blue-naped parrots *Tanygnathus lucionensis* which is brought by the abundance of 'manggis' *Koompassia excelsa*, the tallest tree in tropical Asia. Cockatoos are present in low numbers.

Patnanungan Island, Polillo group of islands in Quezon harbors the only known Philippine cockatoo population in the Luzon faunal region.

Aside from Palawan and Polillo, cockatoos have recently (within the last eight years) reliably only being sighted in Samar and in different locations in the Sulu Archipelago (Fig.1).

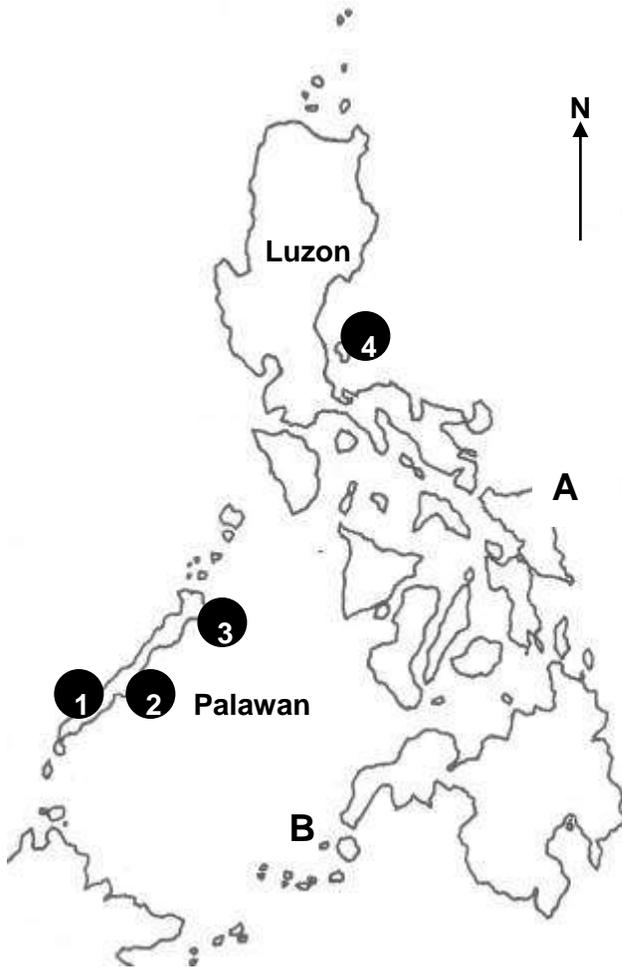
### **Objective of the Philippine Cockatoo Conservation Program**

Conservation and restoration of the most viable subpopulations of the Philippine cockatoo and their habitats, including associated flora and fauna under involvement of all key stakeholders, resulting in a down-listing of the species from 'Critical' to 'Endangered' within the next six years.

### **Program Strategy**

The general program strategies are:

- Community-based management of local resources in the framework of Philippine law;
- Capacity-building for local decision-makers to ensure sustainability of the conservation efforts; and,
- Ecosystemic conservation approach with the Philippine cockatoo as flagship species.



**Figure 1.** Map of the Philippines indicating sites of the Philippine Cockatoo Conservation Program for comprehensive nest protection: 1. Culasian Managed Resource Protected Area (proposed), Rizal; 2. Rasa Island, Narra; 3. Omoi and Manambaling Cockatoo Reserves, Dumaran; 4. Patnanungan Island, Polillo group of islands, Quezon. Recent sightings of cockatoos: A) eastern Samar, B) Sulu archipelago.

### **Deliverables**

#### **Objective 1: Conservation of cockatoo population on Rasa Island, Narra continued**

- Continue wardening scheme.
- Assist and capacitate Protected Areas Management Board in the management of the Philippine Cockatoo and Rasa Island Wildlife Sanctuary.
- Conduct conservation education for stakeholders.
- Lobby for protection of Rasa Wildlife Sanctuary under congressional proclamation.
- Assist in ongoing livelihood projects.

Objective 2: Conservation of cockatoo population on Dumarán Island, Dumarán continued

- Continue wardening scheme.
- Assist and capacitate Local Protected Areas Management Committee in the management of the Philippine cockatoo, as well as Omoi and Manambaling Cockatoo Reserve.
- Conduct conservation education for stakeholders.
- Assist in ongoing livelihood projects and municipal reforestation projects.
- Lobby for declaration as “Critical Habitat” (under RA 9147) for the two protected areas, nest sites, buffer zones and corridors in Dumarán.

Objective 3: Conservation of cockatoo population in Culasian Managed Resource Protected Area, Rizal continued

- Continue wardening scheme.
- Assist and capacitate local Protected Areas Management Committee in the management of the Philippine cockatoo and Culasian Managed Resource Protected Area.
- Conduct conservation education for stakeholders.
- Provide alternative livelihood for key-stakeholders of the protected area.
- Support integration in NIPAS through CI.

Objective 4: Research on conservation-related topics on biology of Philippine cockatoo conducted

- Systematically collect information on breeding, feeding biology and population dynamics of Philippine cockatoo.
- Further develop mechanisms for translocation of Philippine cockatoos and implement, if need arises.
- Assist wardening scheme in Patnanungan in cooperation with the Polillo Ecology Stewardship Project.
- Continue floristic assessments of Rasa and Dumarán.
- Continue experimental habitat restoration in Dumarán and monitoring of existing plots in Rasa and Dumarán.
- Conduct survey in Calamianes in cooperation with FFI.
- Continue faunal inventories in protected areas of Rizal and Dumarán.

Objective 5: Katala Institute for Ecology and Biodiversity Conservation further developed

- Continue development of quarantine area to accommodate rescued cockatoos from Rasa.
- Continue landscaping with native species propagated in the Katala nursery.
- Continue submitting proposals to other potential donors.

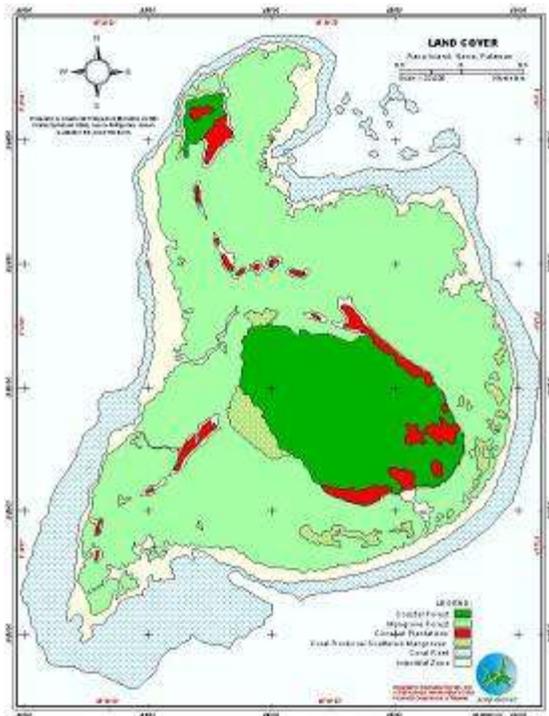
## Description of Project Sites

### **Rasa Island, Narra, Palawan**

Rasa is a small coral island of 8.34 km<sup>2</sup> area situated in the Sulu Sea, just offshore of the Municipality of Narra, Palawan, Philippines (Fig. 2). About 1.75 km<sup>2</sup> are covered with coastal forest, mangrove (5.60 km<sup>2</sup>), cultivated areas (predominantly coconut; 0.39 km<sup>2</sup>), 0.60 km<sup>2</sup> are barren or sparsely vegetated sand and coral outcrops.

The island is the pilot site of the program since 1998. Key component of this project site is the wardening scheme which involves patrolling and protection of the birds during and outside the breeding season. This scheme has proven to be efficient. It has more than doubled the population of cockatoos on the island over six years (presently ca. 200 birds).

Rasa Island probably holds the highest population density of Philippine cockatoo that remains in the wild. The world population of Philippine cockatoo was estimated to range between 1,000 to 4,000 individuals (Lambert, 1994). More recent estimates put the number of cockatoos remaining in the wild between 870 and 2,300 (Widmann, 2001). About 70 to 75% of this population is probably found in Palawan (Boussekey, 2000b). This makes Rasa a high priority area for the protection of this species.



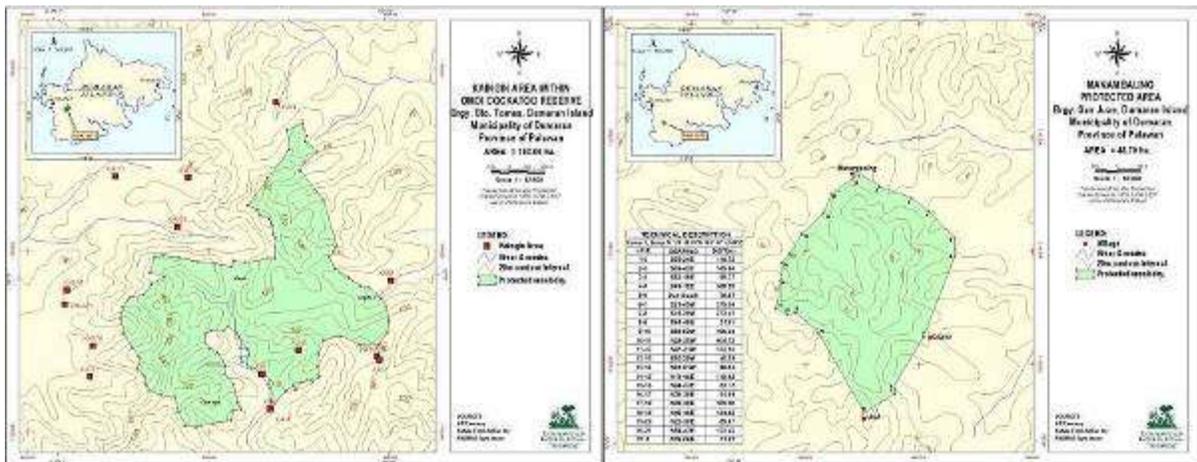
**Figure 2.** Vegetation and land-use of Rasa Island, Palawan, Philippines.

### **Dumaran Island, Dumaran, Palawan**

Dumaran is situated in north-eastern Palawan between 10°22' and 10°41'N and 119°28' and 119°55'E. Nine Barangays are situated on Palawan mainland, seven on western Dumaran Island. The island is situated in the Sulu Sea and separated by a ca. 7 km wide channel from the mainland.

The terrain on the island is rolling with the highest elevation being only 120m a.s.l. No permanent river systems exist. No lentic water bodies exist in the municipality. Dumaran

Island is a typical land bridge island (Widmann, 1998) which was connected several times with mainland Palawan during the Pleistocene glaciations.



**Figure 3.** Omoi Cockatoo Reserve (left) and Manambaling Cockatoo Reserve (right) cover the last forest patches on Dumaran Island.

PCCP currently manages three areas on the island: Omoi and Manambaling Cockatoo Reserves (Fig.3) and the traditional roosting site in Lagan.

### **Culasian Managed Resource Protected Area (CMRPA), Rizal, Palawan**

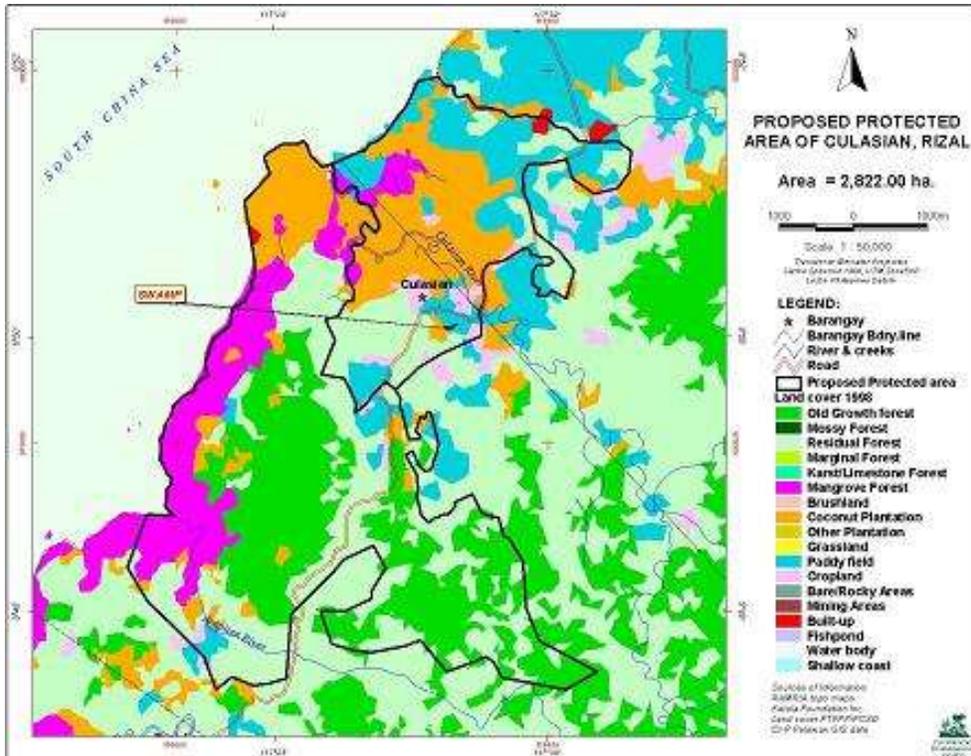
The PA is located in the southern portion of Palawan Island in the municipality of Rizal. It is situated in the coastal plain facing the South China Sea, between the coordinates 8°52' to 8°47' N and 117°27' to 117°31' E. The PA comprises 1,954ha with an additional 300ha included if the proposal for the protection of a nearby wetland will be approved.

CMRPA ranges from sea level to about 140ma.s.l. south of Culasian proper. The terrain is flat in the narrow coastal area, and rolling to moderately steep in the remaining portions. The two largest forest areas persist north of the highway near Tagbalugo on an isolated moderately steep hill reaching 120ma.s.l. and a highly fragmented rolling forest area south of the highway from ca. 20 to 140ma.s.l. near Darapiton, Malutoc, Balingasag and Tuburon.

Two permanent rivers mark the periphery of CMRPA: Culasian River in the north and Arapitan River in the south. Smaller ephemeral creeks and stagnant water bodies can be found inside the area.

The major terrestrial ecosystem in the proposed PA is lowland dipterocarp forest. Unlike most forests in Palawan, canopy heights are very high, often thirty to forty meters, with "Apitong" *Dipterocarpus grandiflorus*, "Manggis" *Koompassia excelsa* being the most conspicuous emergent tree species. Other emergent trees are for example *Dipterocarpus gracilis*, *Dipterocarpus hasselti*, *Intsia bijuga* and *Koordersiodendron pinnatum*.

Level areas are dominated by permanent cultivation, mostly irrigated and rain-fed rice paddies, permanent cultivation like coconut and pastures. Patches of shrub- and grassland exist particularly along the National Highway. Shifting cultivation is also most common along the roads, but can frequently be found isolated in forested areas, often on steep slopes. Emergent "Manggis" and "Apitong", isolated in cultivated areas, indicate nest sites of parrots or hill mynas which are 'owned' by a poacher, and therefore were not cut during the area was cultivated.



**Figure 4.** Vegetation, land use and boundaries of Culasian Managed Resource Protected Area, Rizal, Palawan.

**Patnanungan, Polillo group of islands, Quezon**

The Polillo group of islands in Quezon is possibly the last area containing a population of the critically endangered Philippine cockatoo *Cacatua haematuropygia*, or ‘Kalangay’ as known locally, in the Luzon faunal region (Gonzalez 1997, Collar et al. 1999, Widmann 2001).

Patnanungan Island is mainly covered with secondary vegetation often interspersed with coconuts. The narrow coastal plains in the south and the more extensive ones in the north are transformed into irrigated rice paddies whenever permanent water-flows could be tapped, Higher terrain was transformed into coconut plantations and exceptionally into grassland, due to repeated burning.

Forests, particularly in the northern and central portion of the island, are frequently transformed into slash-and-burn fields. The small diameter classes of cut trees indicate that rotational periods might be shorter than fifteen years. Principal crops planted are corn, cassava, banana and papaya.

Cockatoos persist in very low numbers. No recent observation contained more than two birds at a time. Habitat is seriously degraded and lack of nest trees might be a limiting factor. Poaching for the pet trade is still ongoing, due to insufficient law enforcement, particularly in remote areas.



**Fig. 5.** Vegetation and land use of Patnanungan Island (Hampson et al., 2002). Light green: coconut, dark green: forest, blue: mangrove, orange ricefield, light orange: cornfield, olive: grassland, grey: settlement

## Methodologies

The Philippine Cockatoo Conservation Program (PCCP) employs an ecosystemic and community-based approach to biodiversity conservation using the Philippine cockatoo as its flagship species. The main components of the program are nest protection or wardening schemes; scientific researches on feeding, biology and ecology of the Philippine cockatoo and other threatened species; identification, protection and management of key conservation sites; conservation education; habitat restoration; and capacity building. Researches on the Philippine cockatoo include distributional surveys, rescue of individual birds, translocation assessments, and conservation breeding for later re-introduction.

Information on the biology and ecology of the cockatoo is gathered through direct observation. On Rasa, movements of the cockatoos can be best observed from a boat, from beaches or coral outcrops. Very dense vegetation on the island considerably hampers visibility on transect walks or point counts. On Dumarán, Rizal and Patnanungan, movements are observed through wardens monitoring and patrols at protected areas and roost sites.

Monitoring of the population trend on Rasa and Dumarán is done through counting individuals at a traditional roost site. A traditional roost site is situated in a mangrove area on Rasa and can be observed from a boat while in Dumarán a privately-owned coconut plantation serves as the roost site bordering close to a mangrove area. Counts are conducted monthly either before sunset on Rasa and daily on Dumarán. Exceptionally, counts are also conducted during dawn before birds leave the roost site. Whenever possible, counts on Rasa are conducted under similar weather and light conditions. No roosting sites are known from Culasian and Patnanungan.

The core component in all project sites is the wardening scheme, employing former poachers as wildlife wardens. Nest trees are characterized through species identification, tree height, diameter at breast height (DBH), height of nest hole, exposition of nest hole, diameter of

hole, and diameter at base and depth of cavity. The geographic location of each nest tree is taken with the help of a GPS and marked in a map.

Presence or absence and condition of adult birds, eggs, nestlings or nest predators are noted. Nestlings are weighed with Pesola spring balances/and or electronic balance and banded with aluminum rings bearing the inscription of the Department of Environment and Natural Resources (DENR), the year and number (e.g. DENR 2008-06).

Volunteers are detailed in monitoring stations at the mainland coasts of Narra within and outside the breeding season. These volunteers record all sightings of cockatoos and other significant wildlife in the area of assignment.

Surveys in unknown areas are based on historical sources or recent information. To initially narrow down the searches, non-formal interviews with key informants (poachers, other forest users, barangay officials, school teachers) are conducted. Surveys aim to identify remnant cockatoo populations or areas which are suitable for translocation.

Herbarium collections are made of key plants in cockatoo habitats, particularly food-providing plants, and nest and roost trees. The physical structures of cockatoo breeding habitats are characterized through forest profiles. Phenological information on fruiting and flowering of food-providing trees are systematically collected on Rasa.

Restoration of mangrove is conducted on Rasa through transplanting of nursery-grown trees. Experimental restoration of lowland forest habitat is done in on Dumaran. Particularly nest- and food-providing plants for cockatoos are systematically tested for their suitability for reforestation. MS Access and excel programs are used for analysis.

Composition of remaining bird communities in project and survey sites is assessed using MacKinnon-Lists and, occasionally, mist-netting. Composition of mammal, reptile and amphibian communities in project sites is assessed through direct observations, mist- and harp-netting, live-trapping (Sherman type and locally-made cage type) and pitfall trapping.

To identify potential cooperators for the projects, livelihood needs, and capacities, stakeholder and SWOT analyses are employed. Participatory planning is done through goal-oriented project planning methodology. Alternative livelihood is provided for key-stakeholders of the cockatoo and the PAs, based on the needs assessments.

Conservation education activities employ the PRIDE approach which uses marketing methodologies to galvanize community support for conservation. The approach conducts pre and post project surveys to assess changes in levels of knowledge, awareness and behavior among target audience by using control groups. Survey Pro is used for analysis on changes over time. Proven marketing vehicles like billboards, posters, fact sheets, puppet shows, school and community visits, festivals and media participation are used to deliver relevant and compelling conservation messages.

Relevant trainings and seminars are conducted to help capacitate local partners in conservation. Cross visits to Rasa and other project sites are encouraged to facilitate exchange of experiences, lessons learned and good practices to boost morale of local partners and reinforce knowledge.

Please refer to each output for particular methodologies used in achieving results.

## RESULTS AND PROGRESS

### Output 1: Conservation of cockatoo population on Rasa Island Wildlife Sanctuary (RIWS), Narra continued

#### Wardening scheme

In September, six identified nest trees which need to be protected from persistent monitor lizards were flashed with iron sheets. Other iron sheets which need to be replaced were done too.

Seven artificial nest boxes (ANBs) were installed excluding those two which were installed earlier in January this year. Almaciga resin was used to seal open spaces from rain. It took some time to install the ANBs because they were heavy; between 60-120kg, hence pulleys were used to pull them up to fit in natural cavities and branches. Two climbers were needed to set them on the tree while the rest of the wardens pulled the rope.

Since September, cockatoos had been observed preparing the nest holes e.g. cleaning and deepening the hole, clearing the surrounding area such that many cut twigs and branches were observed during nest monitoring. On the ground, feces were seen scattered in some nest trees already. Seven additional potential nests are monitored along with the existing 56 identified nest trees.

Green and grey imperial pigeons had been sighted very often but most sightings were of the former. Pied imperial pigeons were sighted from October onwards.

Wardens reported the illegal establishment of a new hut in a claimant's area. Ocular inspection was conducted with Deputy PASU Alfaro and documented 52 pcs of mangrove posts illegally cut from Rasa used for the hut. The case is subject for deliberation in next PAMB meeting.

Meanwhile, the reported illegal facility for farming of seaweed inside the boundaries of RIWS was removed upon the order of the Mayor.

On 22<sup>nd</sup> of September, wardens rescued green turtle *Chelonia mydas* hatchlings kept illegally by private individuals from Panacan coasts, Narra. Upon investigation, alleged owners insisted that DENR allowed them to take care of the said turtles. While awaiting action from CENRO, KFI monitored the turtles everyday together with the couple. Hatchlings were measured and documented. On 3<sup>rd</sup> of October, nine hatchlings were finally released back to the seas.



**Figure 6.** Green turtle hatchlings documented and were released in Antipuluan shores in the presence of community members and officials. ©IRegodos

In another case, wardens monitored a new nesting area of green turtle in Antipuluan coast. In cooperation with the barangay officials, 49 hatchlings were

successfully released. The nest area is now closely monitored.

Another rescue was completed when an adult green turtle estimated 80kg was caught up inside a fish corral. After tagging, the turtle was released.

Apart from wardens taking turn to conduct information campaigns and monitoring of cockatoo sightings on mainland Narra, two to four wardens are rotating duties at the Katala Institute for Ecology and Biodiversity Conservation (KIEBC) to assist mainly in turtle care, nursery maintenance and landscaping activities.

### **Capacity building of the Protected Area Management Board (PAMB) of the Rasa Island Wildlife Sanctuary (RIWS)**

The regular PAMB meeting for the 3<sup>rd</sup> quarter was conducted on 2<sup>nd</sup> of September 2008 with eleven member-offices present. PASU Tactay presided the meeting in absence of PAMB Co-Chair Mayor Demaala. Highlights were:

- Deliberations on the PAMB Trust Fund Account and collection of fees. Pertinent PAMB resolutions were already endorsed to the Sangguniang Bayan of Narra.
- Deliberations on the sanctions for violation against Mun. Ordinance No. 2003-60. The case was inflicting injury on the cockatoo. The board endorsed its action to the Municipal Mayor and Chair of PAMB who was absent during the meeting.
- Updates on the following were tackled:
  - Breeding season 2008
  - 4<sup>th</sup> Birdfest participation
  - PCCP 10<sup>th</sup> anniversary
  - Dept. of Tourism Visit to Rasa

Meanwhile, the last quarter PAMB meeting on 02 December 2008 tackled the following issues:

- Committee reports and workplans for 2009. Breeding season workplan for 2009 was duly approved. The PCCP wildlife wardens were again formally introduced to the Board.
- Renewal of warden's deputation. A new DENR Administrative Order No. 2008-22 or the "Revised guidelines on the deputation of Environment and Natural Resources Officers (ENRO)" was explained by PASU Tactay. PCCP wildlife wardens used to have deputation from DENR but this was suspended for some time. While the application of wardens under DENR deputation would require a long process, an executive order by the Mayor was secured meanwhile.
- Deliberations on the Management Plan. This shall be taken as a joint project of the DENR-Protected Areas and Wildlife Bureau (PAWB), Municipality of Narra- PAMB and the KFI within the next five years.

A special PAMB meeting attended by KFI/PCCP, PASU Tactay, MENRO and representative from Department of Agriculture was called by Mayor Demaala on 4<sup>th</sup> December, to specifically tackle pending issues as follows:

- The Dungo family who admitted responsibility over the injury of a cockatoo while foraging on the mainland was "fined" to plant 100 Malunggay cuttings around the dumping site in Princess Urduja. This will be monitored closely by PAMB.
- Mr. Jaime Prudente's illegal seaweed farming was asked to be removed. Future projects must secure PAMB clearance.

Agreements on the above-mentioned issues were elaborated and signed by PAMB Co-Chair and the concerned people.

### Conservation Education

While the sightings of cockatoos on mainland Narra continues, several information campaigns were conducted not only by the PCCP team, but together with the people's organization, Sagip Katala Movement (SKM), and the CENRO-DENR. Frequently visited

barangays e.g. Bgy. Teresa, San Isidro, Princess Urduja, Purok Maligayan, Malinao were priority areas and mostly barangay officials were subject to the campaign.

A list of CE conducted activities in all project sites is presented in Tab. 1.



**Figure 7.** Children enjoyed the interactive games and lectures conducted by KFI during the 2008 Palay Festival in Narra. ©KFI

### Palay Festival

PCCP participated actively during the celebrations of the Palay Festival in Narra from 22 to 25 October 2008. The week-long festivities were highlighted by our regular presentation of the Katala Fun Day on the 24<sup>th</sup>. Lectures not only about the Philippine cockatoo but also about freshwater turtles were given by PCCP staff. Games included bird quest, name game, and puzzles. The puppet show performed by members of the Narra Youth Organization for Environmental Conservation (NYOFEC) was a hit along with Katala, the mascot, who had several appearances all throughout. There were painting contest, bird origami, face painting and coloring books to keep busy with. About 300 school kids were reached.

A booth was afforded free to PCCP/KFI from the municipality. This housed our pictorial display of activities and some focus group discussions with visitors. Film shows on environmental issues and cockatoo documentaries were also done.

### Ecotourism

On Rasa, a total of 146 visitors were registered for 2008, 49 of which arrived between September to December. A number of enthusiastic birders visited Rasa during the Birdfest in September, including birders from Japan, Thailand, and Taiwan who also graced the festival. Their visit was organized not only to bring them to Rasa but other birding sites in Narra as well. An orientation about Rasa and activities therein prepared the visiting tourists. All these were well appreciated and the conservation program was well applauded. Other visiting tourists within the period came from the UK and Germany.



**Figure 8.** PCCP Operations Coordinator Siegfred Diaz gave the orientation to visiting birders in September. Birders also went to Malatgao swamp area guided by PCCP staff. ©IRegodos

**Output 2. Conservation of cockatoo population on Dumarán Island, Dumarán continued**

**Wardening scheme**

Seven nest trees in all were flashed with iron sheets within the period. These were nest of Palawan hornbill, Blue-headed racquet-tail and Hill myna.

Permanent plots for phenological study on food and nest providing trees in the two cockatoo reserves were completed with the help of a forester from the Western Philippines University (please refer to Output 4).

Wardens investigated a mangrove area in Bgy. Capayas reported by residents as possible roost site. However, there were no cockatoos observed during two overnight visits in the area. Egrets were

noted meanwhile. In Bgy. Bohol, another possible roost site, three individuals were observed by wardens feeding on *Sonneratia* in an overnight stay in October. Residents said about five cockatoos were regularly sighted. Continuous monitoring is done. Frequent sightings though were noted just at the pier (port) area of Dumarán Island where vast mangroves are situated. Please refer to Output 4 for other confirmed sightings of cockatoos in Dumarán.

Surveys for potential nests and roost sites were done in Dalarat, Baras and Lagan in, Bgy. San Juan; Candez and Omoi in Bgy. Sto. Tomas; Bgy. Bacao; Cabugao in Bgy. Poblacion; and in Bgy. Capayas. Not all surveys yielded promising results as survey schedules were also affected by weather conditions.

Wardens rescued a young Palawan hornbill which was injured by a gecko on the right eye. After treatment and regaining stability, the young hornbill was released and was observed together with other hornbills.

Within this reporting period, kaingin (shifting cultivation) was prevalent in the island. We retraced boundaries of the two cockatoo reserves to assess intrusion of kaingin activities. This was done with PCSDS and GPS readings were taken. There were three kaingin farms allegedly crossing the boundaries of the PA. The new map is still in process.

Other activities that kept wardens busy included nursery care and management and fixing of the new camp area.

**Conservation education**

Activities at the Katala Environmental Education Center (KEEC) had reached ca. 196 students from September to December 2008 while 929 students in all made use of the center with the assistance from our library aide. This highlights the importance of this small

center with very limited book resources for the community.

Focus group discussions (FGDs) in Omoi, Bgy. Bohol, Kasipolo, So. Lagan were completed primarily with children and farmers as targets. Topics covered mostly issues about kaingin farming, environmental laws and wildlife conservation, particularly on endemic and endangered species. Our library aide grabs every opportunity to lecture to gallivanting children and out of school youth.

### Capacity building

The Local Protected Area Management Committee (LPAMC) convened on 12<sup>th</sup> November and highlights of the meeting were:

- Presentation and approval of the Breeding Season 2009 workplan;
- The legal case of Endangered Species International (ESI) on violating the SEP Law by conducting research without securing proper permits;
- Feedback of one of the trainees of the Bio-gardening Training sponsored by Shell Foundation in August;
- Deliberations on proposal of MENRO for farmers to secure permits from barangay captains to practice kaingin; and
- PSU membership to the LPAMC.

The newly reactivated Environmental Critical Areas Network (ECAN) Board met twice with the reporting period. KFI sits as a member of the board. Meetings were convened by PCSDS. Topics of relevance for the cockatoo conservation included the elaboration of pertinent environmental laws and latest environment issues and problems of Dumarán. Significant for our project is the confirmation from PCSDS that all projects that fall under existing PAs must

secure endorsements from management board as a prerequisite to issuance of SEP clearance.

### Constraints and measures taken

- An argument between wardens and Bgy. Captain of Sto. Tomas spurred when the latter insisted to use confiscated timber without securing proper permits. The Bgy. Captain of Sto. Tomas told our wardens that he got permission to use the said timber from MENRO. It was verified that MENRO did not at all gave the permission. These timbers were cut illegally last year and were confiscated through joint effort of PCCP and MENRO and the case has not been settled yet.
- Kaingin farming is still widely practiced and for some cases it is done near or within boundaries of the PAs. MENRO proposed to the LPAMC that farmers must secure permits from barangay captains to practice kaingin; however, this did not pass through the committee as it only legalizes the illegal practice. Intensive monitoring must be stepped up as some members suspected that neighboring town of Araceli are presently illegally cutting trees from Dumarán for their building projects. It is noteworthy that PCSDS during the ECAN board meeting reported that there had been no duly registered chainsaw from Dumarán. Hence, anyone using chainsaw is illegal.
- We are trying to map out all kaingin farms surrounding the two cockatoo reserves. GPS readings were taken and compared to previous readings taken. There might also be a need to retrace the exact boundaries of the PAs. The data was submitted to CI for map generation. They did the PA boundary map.
- The case of Endangered Species International with French researcher

Fidenci is now before the Provincial Adjudication Board. The Palawan Council for Sustainable Development Staff (PCSDS) acts now as complainant and KFI, Municipality of Taytay, and the Western Philippines University, as witnesses. This is a promising progress that will hopefully put an end to the case.

- We continue to follow up on the committed budget appropriation for 2009 as counterpart to the conservation project.

**Output 3. Conservation of cockatoo population in Culasian Managed Resource Protected Area (CMRPA), Rizal continued**

**Wardening scheme**

Five cockatoos were observed in adjacent mangrove area in Culasian. One was observed with a blackish string/band on the left leg. Four other individuals were regularly observed near nest tree in Balukanad area, afar from the mangrove area where the five cockatoos were observed. The latter four probably were from the nest tree which was successfully protected this year as they were observed roosting on the said nest tree. These observations suggest that the cockatoos observed in two different locations belong to separate flocks based from the time of observations and directions of flight. Wardens continue to monitor these movements and to possibly track the roost site in the mangrove area.

Meanwhile, characterization of 76 nest trees from Tagbalugo area was completed. Thirty-six parameters were taken including nest tree species, vitality, nest height, tree height, bole height, exposition of nest hole, position and exposition of nest hole, diameter of nest chamber, situation of nest tree among others. Elevation, slope, vegetation type, number of woody species and adjacent vegetation types were noted and height

and DBH of canopy forming tree species within a 10x10m plot surrounding the identified nest tree were measured.

Patrol within and around the PA continued. Together with local police officials, an unregistered chainsaw was confiscated. An Ipil *Intsia bijuga* at the border of the CMRPA was illegally cut but perpetrators were not traced. Several cases of illegal cutting had happened around the PA that has not been acted upon yet by authorities.

We have tried all possible means to engage authorities and concerned local agencies regarding the rampant and unabated illegal activities in Rizal. Our wardens and Field Officer continue to be threatened and in several times, we either have to pull them out from the area or work inactively in order not to endanger their very lives.

**Capacity building**

There was no LPAMC meeting conducted within the period because of heavy rains and a common date could not be settled by the Mayor and other member offices. This made it impossible to confront pressing issues on illegal activities.

During the 4<sup>th</sup> Phil. Birdfest celebration however; KFI brought forward the alarming illegal wildlife trade particularly in southern Palawan during the Bird Conservation Forum in September. KFI was invited to present on Bird Trade in Palawan. This presentation was based on KFI's continuing efforts and studies on illegal wildlife trade in the province. This has stirred attention among many others the media. Please refer to articles published under Other Highlights.

**Constraints and measures taken**

- The growing and unrestrained illegal activities in Rizal allegedly involving public officials increasingly make conservation hard in the area. Threats to security greatly affect our

wardens and Field Officer. Despite media blitz on said issues, illegal activities seem to continue.

- This development might have adverse effects on our project plans for Rizal. However, we believe that other measures can be taken, e.g. effective integration of the protected area to the Mt. Mantalingahan Protected Landscape program.

**Output 4. Research on conservation-related topics on biology of Philippine cockatoo conducted**

**Systematic collection of data on breeding and feeding biology and population dynamics of Philippine cockatoo continued**

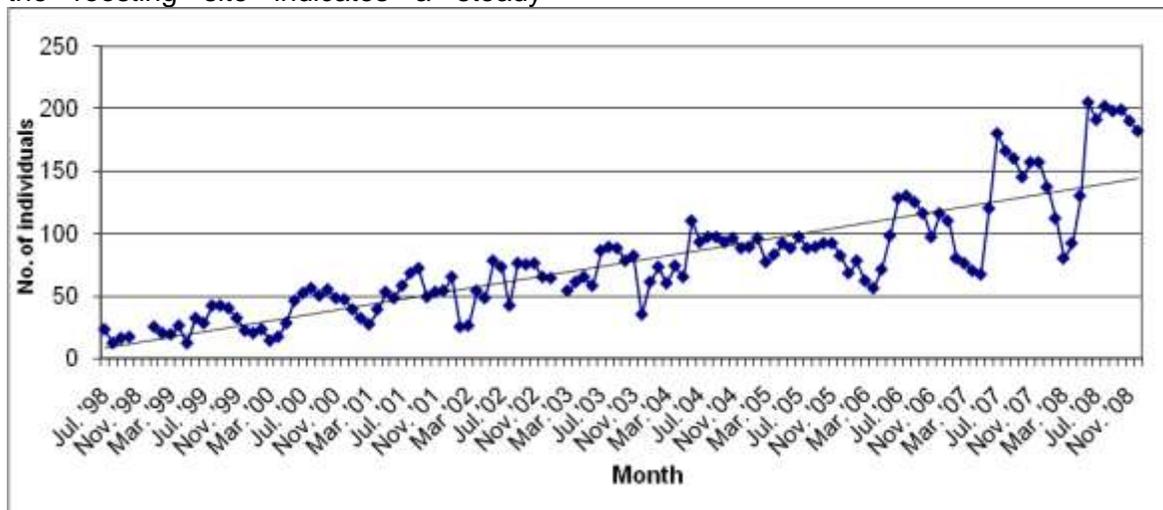
**Rasa Island Wildlife Sanctuary – RIWS**

At the traditional roost site, the highest counts were in June with 205 individuals, the highest ever recorded since start of the project, and 199 in October respectively (Fig. 9). We are doing two roost counts per month the least. Since June, roost counts were no less than 180 individuals.

The numbers of cockatoos counted at the roosting site indicates a steady

increase as manifested in counts after breeding season (Fig. 10). The fall in 2002 might be a function of the weather conditions during the roost count because counts in July and September of same year were relatively stable at 73 and 76 respectively. Meanwhile the drop in 2005 was brought about by the severe drought wherein we had to rescue hatchlings from death. Apparently, availability of food and weather conditions in some way dictates the trend of population of cockatoos on Rasa.

On mainland Narra, the population trend is also upwards based on maximum numbers counted (Fig 11). The highest counts were regularly observed in two mainland stations (Marcelo and Borbon) except for the July count when 70 individuals were reported in Malinao area. Marcelo area is planted with Malunggay *Moringa oleifera*, a favorite local food source. This area is guarded by the Marcelo family, long time volunteers in the project. Borbon station is the shortest route from Rasa Island to mainland Narra which is regularly taken by the cockatoos.

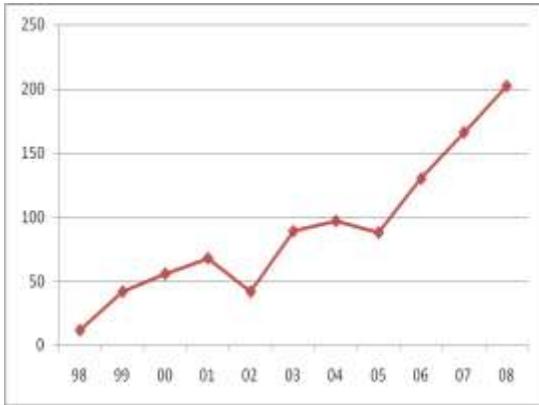


**Figure 9.** Monthly roost counts of Philippine cockatoos at the traditional roost site, Rasa Island, Palawan.

**Table 1.** Conservation education campaigns, September - December 2008, Philippine Cockatoo Conservation Program

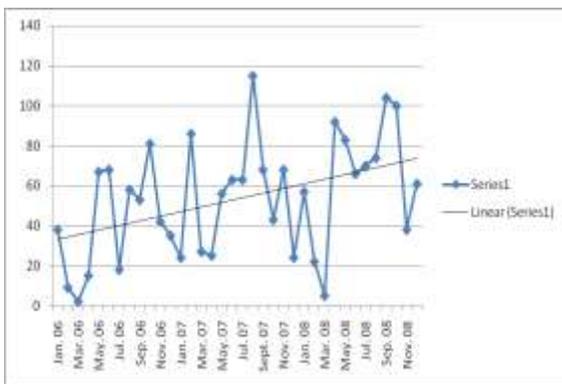
DATE/TIME	ACTIVITIES CONDUCTED	LOCATION	RESULTS/REMARKS	PROBLEMS ENCOUNTERED
09.01.08	Interactive lecture	Dumaran Elementary School, Dumaran	<ul style="list-style-type: none"> <li>11 children attended the lecture and were given information materials likewise encouraged them to visit at Katala Environmental Education Center</li> </ul>	None
09.02.08	Focus Group Discussion	KEEC, Dumaran	<ul style="list-style-type: none"> <li>Conducted short discussion on the importance of protected area to 9 library visitors.</li> </ul>	None
09.04.08	Interactive lecture	So. Omoi, Barangay Sto. Tomas, Dumaran	<ul style="list-style-type: none"> <li>Discussed Philippine biodiversity and conservation to 17 people.</li> <li>Distributed IEC materials.</li> </ul>	None
09.06.08	Interactive lecture	Barangay San Isidro	<ul style="list-style-type: none"> <li>Facilitated by SKM members;</li> <li>7 adults attended which are mostly mine workers.</li> </ul>	None
09.12.08	FGD to Zookeepers Workshop Delegates	RIWS, Narra	<ul style="list-style-type: none"> <li>Shared experiences on in-situ conservation project to members of ZAP.</li> <li>They appreciated the conservation efforts done for PCCP.</li> </ul>	None
09.12-14.08	4 <sup>th</sup> Philippine Bird Festival	City Coliseum, Puerto Princesa City	<ul style="list-style-type: none"> <li>Conducted lectures and games to more or less 800 elementary and 1200 high school students coming from different schools in Puerto Princesa together with their parents and other interested individuals.</li> <li>The festival was graced by Hon. Mayor Eduard Hagedorn and joined by bird watchers coming from different part of the country.</li> <li>Katala (the mascot) performed several times during the event which the audience appreciated very much.</li> <li>The awareness on endangered birds and cockatoo conservation were highlighted during lecture.</li> <li>Information materials were distributed especially given to educators present.</li> </ul>	None
09.14.08	FGD to Bird Festival Delegates	RIWS, Narra	<ul style="list-style-type: none"> <li>The delegates appreciated the conservation efforts done to conserve the Philippine cockatoo.</li> <li>They were so excited when they saw the cockatoos, Great billed heron, and the imperial pigeon that were now lifers to them.</li> </ul>	None
09.15-19.08	Booth and exhibit during PSU Biodiversity Week Celebration	Palawan State University, Puerto Princesa City	<ul style="list-style-type: none"> <li>Displayed several tarpaulins on Wildlife Act, Philippine Cockatoo Conservation Program, and Philippine Freshwater Turtle Conservation Program, as well as Birding Palawan information materials.</li> <li>All 200 brochures and 50 posters of Kalayaan were dispensed.</li> </ul>	None

10.10.08	Interactive Lecture	Barangay Dumarán Bohol,	<ul style="list-style-type: none"> <li>Discussed the importance of mangroves (Pagatpat in particular) in balancing the ecosystem and to the survival of cockatoos.</li> <li>17 people attended and were given with information materials.</li> </ul>	None
10.17-25.08	Booth & Exhibit during Palay Festival Celebration.	Poblacion, Narra	<ul style="list-style-type: none"> <li>Displayed several tarpaulins on Wildlife Act, Philippine Cockatoo Conservation Program, and Philippine Freshwater Turtle Conservation Program, as well as Birding Palawan information materials.</li> </ul>	None
10.21-25.08	Environmental Film Showing	Poblacion, Narra	<ul style="list-style-type: none"> <li>Showed Megadiversity films, Philippine eagle conservation, Pitong Paraiso, The explorer.</li> <li>Every night, kids and adult were gathered to watch film at KF booth.</li> </ul>	None
10.21.08	Focus group discussion	So. Kasipolo, Barangay Bohol, Dumarán	<ul style="list-style-type: none"> <li>Discussed the disadvantages of slash and burn farming to 11 adult who attended the discussion.</li> </ul>	None
10.24.08	Katala Fun Day	Poblacion, Narra	<ul style="list-style-type: none"> <li>Conducted interactive lecture, games, mascot show, face painting, coloring activity, and puppet show.</li> <li>More or less 150 children and enjoyed the fun day.</li> </ul>	
11.05.08	Short lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>Conducted short lecture on 7 Environmental Principles to 18 secondary students.</li> </ul>	None
11.06.08	Short lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>Discussed about conservation to 21 College students.</li> </ul>	None
11.17.08	Focus group discussion	So. Omoi, Barangay Sto. Tomas, Dumarán	<ul style="list-style-type: none"> <li>Discussed the importance of endemic and endangered animals to 8 people and were given with information materials.</li> </ul>	None
11.18.08	Focus group discussion	So. Lagan, Barangay San Juan, Dumarán	<ul style="list-style-type: none"> <li>Discussed Wildlife Act to 17 children.</li> </ul>	None
11.19.08	Interactive lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>22 Grade IV pupils participated actively in the lecture and games that was conducted. Discussed the Share a place to live theme.</li> </ul>	None
11.20.08	Interactive lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>Discussed the importance of protected area to 11 Grade V students.</li> </ul>	None
11.21.08	Interactive lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>19 Grade VI students participated the lecture on 7 Environmental Principles.</li> </ul>	None
12.04.08	Interactive lecture	KEEC, Dumarán	<ul style="list-style-type: none"> <li>Conducted lecture on Philippine biodiversity to 17 grade VI students.</li> </ul>	None



**Figure 10.** Cockatoo counts on the traditional roosting site on Rasa Island during the month of August (after breeding season) from 1998 to 2008.

A new volunteer is in place to monitor arrival and exit of birds in the area. In September, in two successive days, cockatoos were observed to arrive in Borbon and after foraging went back to Rasa the same morning. Another flock arrives in mid afternoon and goes back to Rasa after foraging. But from then on, no second flock was observed in the afternoon at Borbon station. Birds observed stayed until before 10am before they head back to the island. In bad weather conditions, they head back earlier to Rasa. They were observed flying low as well. High arrival and exit counts ranging from 41-100 were observed in late October for a week.



**Figure 11.** Maximum numbers of Philippine cockatoos counted on the mainland opposite Rasa Island on a single day.

Some birds were observed directly flying from Rasa to the old Trident pier in Panacan, mainland Narra in search for Malunggay as most planted areas with fruits had already been consumed by the birds.

New sites noted in previous report did not harbor significant numbers from September to December.

Sites are mainly characterized by presence of *Moringa oleifera* hence some stations were intermittently visited by cockatoos. Considering the successful Malunggay planting activities this year, we expect that more cockatoos will frequent the mainland areas unharmed especially that information campaigns were conducted.

Seven additional artificial nest boxes were installed in Rasa (Tab. 2). These were attached about 15m in height to trees where ANBs are visible or exposed. We might as well try to install ANBs in lower heights since majority of natural nests on Rasa are also on lower heights.

We continue to monitor rainfall in all sites. On Rasa, it had been wetter compared to 2007 rainfall from September to December (508 vs. 741.2mm) however, we do not know what implications could this have for the coming breeding season. It is also noteworthy to mention that precipitation is highest this year in comparison to previous years at 2198.1mm (source: Philippine Atmospheric, Geophysical and Astrological Services Administration (PAGASA) based in WPU, Aborlan and Puerto Princesa City).

**Table 2.** Characterization of artificial nest boxes (ANBs) and sites at Rasa Island Wildlife Sanctuary, Narra, Palawan, 2008

ANB No.	Date	Tree attached to (Sci. Name)	Tree Measurements (m)			Nest Measurements (cm)						Remarks
			Height	DBH	H of ANB	Depth	Length	Chamber (dia)	Opening (dia)	Nest Orient.	Inclination	
108	1/3/2008	<i>Garuga floribunda</i>	29	3.5 of 1.29	16	80	140	12-17	11	NE	Horizontal	
208	1/4/2008	<i>Garuga floribunda</i>	28	2.0 of 0.87	18	80	120	13-15	22	SE	Horizontal	
308	9/21/2008	<i>Garuga floribunda</i>	38	1.94 at 2.72	13.5	84	146	25-30	9	NW 48°	Horizontal	Installed on a major branch
408	9/21/2008	<i>Garuga floribunda</i>	28.5	0.08	12.5	69	116	16-22	12	NW 70°	Horizontal	Installed in dried cut branch inserted & fixed with pcs of wood and tied with wire
508	9/21/2008	<i>Garuga floribunda</i>	27.3	0.65	6	130	170	23-32	15 & 23	NW 45°	Horizontal	Installed in between branches
608	9/21/2008		17.5	0.25	6.5	95	150	19-28	8	NE 15°	Vertical	Installed in between branches
708	9/24/2008	<i>Avicennia sp.</i>	9.3	0.24	6.8	87	115	24-30	8	NE 80°	Vertical	Installed in dried branch tied with wire
808	9/24/2008	<i>Avicennia sp.</i>	10.8	0.42	8.4	73	119	20-30	9 x 17	NE 40°	Vertical	Installed in dried branch tied with wire
908	9/24/2008	<i>Garuga floribunda</i>	15.6	0.27	12	87	105	26-35	9 x 16	SW 15°	Vertical	Installed in between branches

## Note:

ANBs are made of driftwood with chamber and holes. Set as natural cavities, installed in live standing trees.

In total we had 56 identified nest trees on Rasa with six new discoveries (two *Garuga floribunda*, three *Sonneratia alba*, and one *Sterculia* sp. or Gindaon as known locally). A total of 32 nest trees were occupied this year with 78 recorded eggs. Breeding success was 63% with 49 fledglings. Out of 27 pairs with hatchlings, 21 pairs had successful fledglings. No incidents of starvation were observed this breeding season.

**Dumaran Island**

Several sightings of cockatoos at the Poblacion area in Dumaran Island in particular at the pier area were noted within the reporting period. These were not only reported by wardens but by residents as well. Reports range from 3 to 11 individuals per sighting, usually around 3:00-5:00pm and heading towards the mangrove areas.

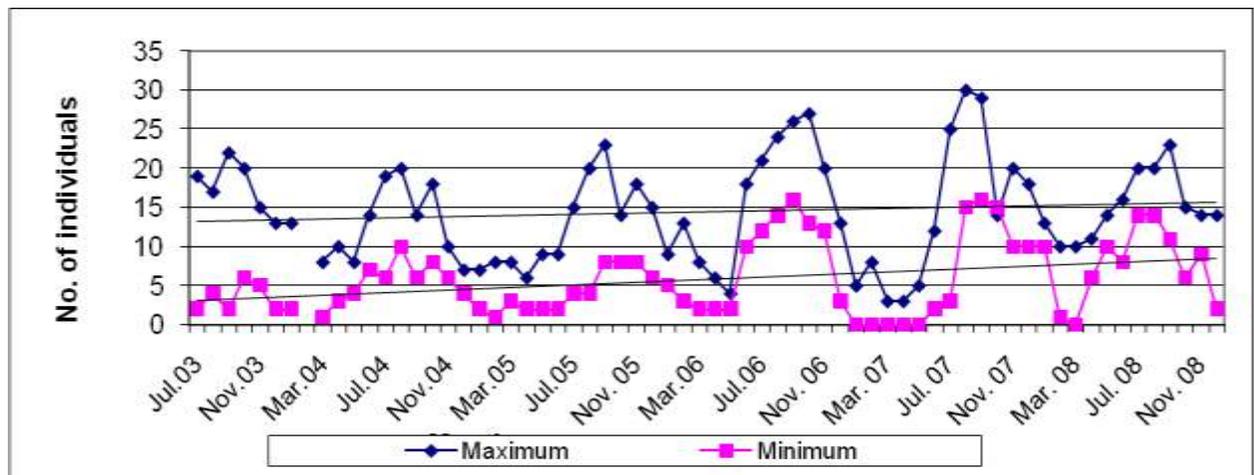
Daily counts at the traditional roost site in Lagan recorded 23 individuals in September; however this has dropped in the succeeding months while birds were

observed at nest trees (Fig.12). The population trend in Dumaran is at slow growth pace, perhaps due to limited nest trees and weather conditions.

Revisits to the mangrove area in Bgy. Bohol was done within the period and during those visits birds were seen foraging on *Sonneratia* sp. and then maybe heading to Lagan roost site. Residents however reported that cockatoos had been frequenting the Bohol area as a roost site. This area was monitored earlier as potential roost site.

A survey in another mangrove area in Bgy. Capayas was conducted but during the visits only egrets were noted. *Sonneratia* sp. is the dominant species in both mangrove areas.

We had 10 eggs this year; however only two eggs successfully hatched, with nestlings banded and fledged. There were nine identified nest trees but two fell already. Only four were occupied this year.



**Figure 12.** Monthly maximum and minimum numbers of Philippine cockatoos roosting at the traditional roost site in So. Lagan, Bgy. San Juan, Dumaran, Palawan.

**CMRPA, Rizal**

Five cockatoos were observed late afternoon in adjacent mangrove area of Culasian within the CMRPA. One was observed with a blackish string/band on

the left leg. This flock could possibly be roosting somewhere on the mangroves. Wardens continue to monitor the area but are hampered by weather conditions and security reasons.

Meanwhile four cockatoos were regularly observed near nest tree in Balukanad area. This could be the breeding pair with its successful fledglings this year.

Since these observations were done simultaneously we speculate that there might be more individuals than previously thought in the area; however, constant monitoring should be done especially tracking on roost sites.

This year we have confirmed four hatchlings from Rizal; two from inside the CMRPA and two from a Manggis *Koompassia excelsa* nest tree in Ransang.

### **Floral inventories in Rasa and Dumarán and phenological research continued**

Floral assessment in Dumarán was completed in October 2008. Twelve plots and 15 plots were established in Manambaling Protected Area and Omoi Cockatoo Reserve, respectively. A total of 552, 472 and 300 individuals had been recorded in the areas from the 3 forest structural layers namely: canopy ( $\geq 15$  cm dbh), intermediate (3-14.99 cm dbh) and undergrowth (<3cm dbh) layers, respectively. Twenty-seven plots were established in Omoi Cockatoo Reserve and 18 plots were established in Manambaling Protected Area. There were 62 species recorded in Manambaling Protected area while 75 species represented by 59 genera and 32 families were recorded in Omoi Cockatoo Reserve. This project is in cooperation with the Western Philippines University (WPU) through Forester Dhiocel A. Celadiña.

### **PCCP in Patnanungan, Polillo**

The cockatoos observed within the period were frequenting three areas in Bgy. Patnanungan Norte. Our wildlife warden surmised that this may be due to the continuous torrential rains experienced on the other parts of the island.

We are monitoring seven cockatoo nest trees in all; five of which from municipality of Patnanungan and two from Burdeos. On a recent visit to the nest tree *Shorea astylosa* in Bgy. Anibawan, Burdeos, two individuals were observed around 5:30pm along with Tarictic hornbills and crows. The Kalangays as cockatoos are locally known, were observed to be very aggressive when the Tarictics perched on their tree. The Kalangays were making raucous vocalizations and were flying in circles near the nest hole. Other indications of nest occupation were observed as well, like cut twigs and branches. Other nests were visited in December but yielded no sightings of cockatoos.

Kaingin and mangrove cutting are persistent on these sites. One kaingin farm was observed just 200 meters away from Kalangay nest trees in Burdeos. In November, illegal cutting of mangrove trees in Balibago, Brgy. Patnanungan Norte was documented and reported to the concerned authorities (Fig. 13). The species cut were five Piapi *Avicennia officinalis* and 64 Bakauan *Rhizophora* sp. Concerned agencies and authorities were informed.



**Figure 13.** Illegal mangrove cutting is rampant in the Polillo Islands. This was taken by the team who documented the cut trees in Balibago, Bgy. Patnanungan Norte. ©LDans

### **Conservation education**

Burdeos celebrated their yearly town fiesta last 23 October. An exhibit focusing on the different parrots found in PGI and effects of habitat loss was displayed.

In December, Thomas Arndt along with Wasito Adi Purnomo visited some nest trees in both municipalities of Burdeos and Patnanungan in search for Philippine cockatoos. Mr. Arndt is an international parrot expert.

### **Calamianes Project Cooperation with FFI-Philippines Program**

Prior Informed Consent Certificates (PICs) and Endorsements were secured from most project sites in compliance with the issuance of the SEP Clearance for the joint project entitled "Threatened Species of the Calamian Islands: developing an integrated regional biodiversity conservation strategy in a global priority area" of KFI and the Fauna and Flora International – Philippine Program. Key components of this project are biological surveys, extensive local community and LGU consultations; local stakeholder capacity building; and conservation education.

### **Constraints and measures taken**

- In Rizal, regular work became more difficult when security of our Field Officer and our wardens were at stake. We had restrained our Field Officer from visiting site. This made it harder to assist our wildlife wardens.
- The proposal on bufferzone management in Dumaran submitted in August was rejected.
- In Polillo, illegal cutting of trees through kaingin practice and mangroves are rampant. This is continuously endangering nest trees of Phil. Cockatoo and other threatened parrots. All documentations and reports

pertaining to these issues were submitted to concerned authorities and national agencies. Few cases are in progress like in Burdeos.

- For the Calamianes project, several factors delayed the process on securing SEP clearance e.g. unresolved political issues in one site, ECAN meeting schedule, but the most time-consuming one was the change of required documents by PCSDS. Hence, we needed to secure resolutions that pass through a barangay session instead of endorsements which we had already gotten as previously advised by PCSDS. While awaiting all these, we meanwhile obtained assurance from the provincial board that once all documents are submitted, they will endorse the project.

### **Output 5. Katala Institute for Ecology and Biodiversity Conservation further developed**

Major activities for this period were concentrated on improving enclosures of turtles (see below) and bird areas. Landscaping is limited to preparation of trees for planting, maintaining nursery area, creation of small ponds, planting more pioneering trees beside aviary and enclosures, pruning of trees beside aviaries, seedbed establishment, and backfilling for the porcupine enclosure.

Electricity was installed in turtle quarantine, breeding and caretaker facilities, and so far two ponds were supplied with an electric water pump/filter system.

RIWS PASu and CENRO Narra Fernando Tactay with Deputy PASU Emmanuel Alfaro visited the center in October.

Two bird caretakers and the turtle caretaker attended the Zookeeper Workshop and Training organized by the Zookeepers Association of the Philippines (ZAP) from September 8-12, 2008 at

Puerto Princesa City. Thanks to the generous sponsorship of Chester Zoo, UK. Meanwhile, locals were trained in turtle and bird care and management.

A proposal on Establishing the Access Road and Perimeter Fencing of the entire KIEBC was submitted to the Office of the Mayor for funding.

### Philippine Freshwater Turtle Conservation Project (PFTCP)

As of December 31, 2008 KIEBC holds 34 *Siebenrockiella leytensis*, 19 *Cuora amboinensis*, 11 *Cyclemys dentata*, and 1 *Dogania subplana*.

Major highlights under this project (please also refer to [www.turtleconservationfund.org](http://www.turtleconservationfund.org), [http://www.eaza.net/turtle/frameset\\_turtle.html?page=intro](http://www.eaza.net/turtle/frameset_turtle.html?page=intro) for the reporting period were as follows:



**Figure 14.** CENRO/PASu Tactay inspected the nursery at the KIEBC during his visit. ©DAcosta

- Long term (5-year) population surveys on three populations of *S. leytensis* were initiated in 2008. The funding for the first two years (2008-2009) of fieldwork was secured from the Turtle Conservation Fund (TCF) through EAZA-Shellshock Campaign. A proposal for further extension of the project was submitted to TCF with funding support from IDEA WILD in October 2008.; Enclosures were subdivided and individuals regrouped to encourage mating while at the same time reducing aggression among male Philippine Forest Turtles;
- Four artificial nesting areas were constructed for *S. leytensis*;
- Trained substitutes for turtle regular care and enclosure maintenance;
- Within the framework of the TCF Funding, interviews were conducted in Northern Palawan from 21-27 October 2008; and
- KFI is a formal collaborator and research partner of “The Comparative Biogeography and Conservation of Philippine Vertebrates” (CBCPV) project through the Herpwatch Philippines research consortium. Herpwatch Philippines represents a partnership between the Curator of Herpetology at the University of Kansas Biodiversity Institute (Dr. Rafe Brown) and the Curator of Herpetology at the National Museum of the Philippines (Dr. Arvin Diesmos).
- A proposal addressing the conservation of the vulnerable Southeast Asian Box Turtle in the Philippines was submitted to “People’s Trust for Endangered Species” in December 2008.



**Figure 15.** Big turtle enclosures were enhanced with more plants and subdivided to encourage mating and reduce aggression among male Philippine Forest Turtles. ©DAcosta



**Figure 16.** Turtle researcher DAcosta during the interviews she conducted in Roxas, Palawan in October. ©KFI

### **Philippine Cockatoo**

Since its confiscation from the future project site on Pandanan Island, and recovery at KIEBC in June, the cockatoo “Pinky Pan P08” needs more area for flight practice as it grows. It weighed 296g when it moved in September to the hanging cage. A wooden nest box was installed inside to provide area for resting or hiding. Driftwood was also placed and

this was used more often by the bird for sleeping and resting rather than the nest box. Initial reaction of Pinky Pan was to settle at the bottom of the cage. Twigs and foliage were also placed at the bottom to allow the bird to walk easily and prevent any injury that might be caused by the welded wire. The bird was observed flying, occupying higher perches and making calls now that she has visual contact with the other four birds.

Blinds (sawali or bamboo) were installed to keep out human disturbance. However, it has a wide open view of Victoria Range where it also sees and interacts with free-flying birds.

Four days after transfer, Pinky Pan was observed enjoying a bath in the rain for 30 minutes. The rest of the birds were also observed bathing in the rain.

Feeding of Pinky Pan was adjusted to 3x a day as it learned to eat by itself and gradually to follow the diet of the other four cockatoos. Its present weight ranges between 275-295g.

“Blue B80” which was feather plucking since last reporting period, was moved to the isolation cage in September (Fig. 17). She weighed 295g during the transfer. A wooden box was installed and driftwood as well to give her more choices to hide, rest and play. Foliage was placed inside the cage; outside were bundles of sorghum and banana leaves and fresh lemon grass. We observed few growing feathers on right side of the body covered by the wing. Its diet was also diversified.



**Figure 17.** Blue's isolation cage was fixed and for some time we observed growing feathers on her naked breasts. ©SSchoppe

Blue was also observed chilling for some time. A lamp was strategically installed to provide needed heat. Physical check up revealed no mites. A lamp outside the cage was also installed to allow caretaker to continue observation at night and this confirmed Blue's continuing feather plucking. Feathers plucked were collected from the aviary. It was also observed during the night that Blue was scratching a lot probably because of mosquitoes. Neem tree (mosquito repellent) was planted beside the isolation cage.

Blue was treated with fresh aloe vera to prevent the bird from plucking and perhaps induce feather growth; however, this was observed a bit restless for the bird particularly when applied at daytime. The juice of the lemon grass was also applied.

Meanwhile, Blue was feeding well, looked stable and healthy and was interacting with other cockatoos in the center. Dr. Glenn Rebong from PWRCC regularly inspected the birds and advice was sought from various experts. After all these attempts seemed unproductive we experimented with a neck collar. Two designs were tried out. In December, Dr. Rebong, tried installing the bird collar but within five minutes the bird was able to remove the collar (Fig. 18).

Meanwhile, the hanging cage measuring 260cm x 180cm in width by 200cm in

height and raised 100cm above the ground was improved to secure the birds. Entrance door were improved to provide more security and easier access for the caretaker. Inside the cage were fresh foliage, perches, trays for food and driftwood with holes. The foliage are regularly removed every 2-3 days but the twigs and branches are left scattered for birds to easily walk on the bottom of the cage.



**Figure 18.** Dr. Rebong of PWRCC installing a neck collar to Blue however; this as well did not succeed as collar was destroyed in five minutes. ©SSchoppe

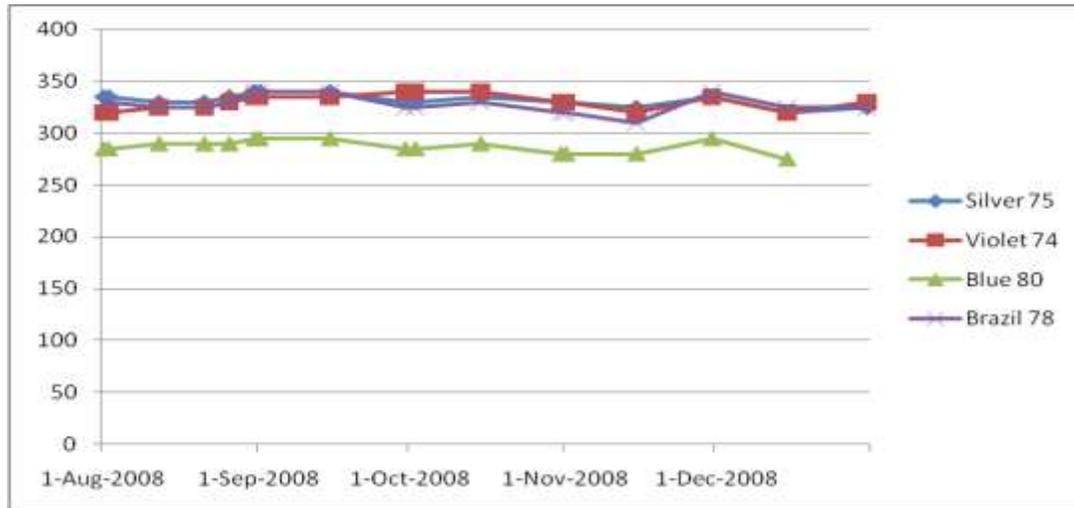
On the ground, garden soil of ca. 7cm thickness is scattered. This will serve as germinating medium for seed droppings from the hanging cage being chewed, played and cut by the cockatoos.

On 23<sup>rd</sup> December, Blue was moved to the hanging cage together with Pinky Pan to allow new social interaction and maybe prevent further plucking. Blue was kept inside a small cage for an hour and was intensely observed. While Pinky Pan was nibbling on foliage and observing Blue inside the small cage, Blue was also restless in the small cage. After an hour of observation, Blue was released from the small cage and attempted to get close to Pinky Pan but the latter kept distance with indications of fear. They kept distance but were observed sharing food. The sharing of food was observed even in the next days. No aggression was observed so far.



**Figure 19.** Pinky Pan and Blue in their hanging aviary. ©SSchoppe

The two other birds, Violet and Brazil, remain healthy and stable (Fig. 20). Violet's red vents have grown again.



**Figure 20.** Weights of four Philippine cockatoos at KIEBC from August – December 2008.

### Constraints and measures taken

- The delay in creating of a road access to the center hampered landscaping activities. We are verifying if the designated access road is a barangay feeder road. If such, we will request public works and highways to fix the said road. We plan to do this through the intervention of KFI President, Sen.

Juan Miguel Zubiri. In addition, two typhoons in this last quarter hit our project sites; adding to the existing problem.

- The softshell turtle experienced an infection of the upper jaw that resulted in a major swelling and hampered feeding. After consulting Dr. Glenn Rebong we first tried oral application

of antibiotics. Since this showed no effect the turtle was brought to PWRCC for injection with antibiotics on 2<sup>nd</sup> December 2008. This proved to be effective and the turtle was returned on 19<sup>th</sup> December 2008 to KIEBC. By the time of reporting the turtle had fully recovered and was feeding well.

- Water quality of the deep well and surrounding waters was tested several times during the reporting period to guarantee the well being of the semi-aquatic and aquatic turtle species.

## Other highlights

### **10<sup>th</sup> PCCP Anniversary Celebration**

The Philippine Cockatoo Conservation Program (PCCP) celebrated its 10<sup>th</sup> year anniversary by honoring its wildlife wardens and local partners. Senator Juan Miguel Zubiri, KFI President lead the recognition and honored our deserving Tagbanua, Pala'wan and Cuyunin wildlife wardens from three project sites in the province. From among our local partners we conferred recognition to the Municipalities of Narra, Dumarán, and Rizal, the PNP stations of these three municipalities, CENRO-Narra, Quezon and Roxas, the CIDG, PCSDS, PWRCC and PENRO-Palawan.

The celebrations kicked off with the arrival of our president who was met with full honors by the Mayor of Puerto Princesa, Hon. Edward Hagedorn. Radio guesting at DYSP (GMA network) immediately followed. Sen. Zubiri discussed about the highlights of the ten years implementation of the program and shared his enthusiasm in pursuing the cockatoo conservation program along with local partners in Palawan as an individual and as a legislator in the country.

In the afternoon, the press conference went on successfully. Mayors and Vice Mayors of each project along with PCSDS Executive Director sat with Sen. Zubiri

trying to satisfy the media's quest for answers. Present illegal activities in Rizal were particularly hot topics. All local project partners committed to extend support to the PCCP for the next years to come.

The photo exhibit and book launching followed suit. The chosen photos featured wildlife species taken at PCCP project sites by Benedict de Laender, Peter Widmann and Sabine Schoppe. Two books were officially launched; the anniversary booklet of the PCCP and the compilation of studies conducted in cooperation with KFI. The former can be accessed at [www.philippinecockatoo.org](http://www.philippinecockatoo.org). The new website of the Katala Foundation was as well launched during the affair. We are indebted to Debbie and Erwin van den Beukel for realizing our visions for the webpage.

The celebration also was highlighted by the yearly Christmas "get together" of the KFI. KFI through its generous donors and supporters offered the Christmas grocery packs for wardens and volunteers. A sack of used clothing was also distributed. All these were made possible through the generous donations from Joel Gimenez of GMA, the Alo Family from the USA, Roberto Ruben, Erwin and Debbie van den Beukel from Netherlands, Margie Subaan from Brunei, Elisita Ponce, Wilhelm and Marlis Schoppe from Germany, Eugenio Alvarado from Canada, Engr. Mario Lilio Valenzona, Dionivic Chiong, Belen Garduce, Dr. and Dra. Posas, and supporters Signcraft Palawan, Municipality of Narra, Palawan, Philam Life, Palawan, PENRO, Palawan and PCSDS, Palawan.

A press release was posted at [www.philippinecockatoo.org](http://www.philippinecockatoo.org) and at the online news of the Philippine Information Agency. Please refer to Annex 1 for photo documentation of the memorable event.

#### **4<sup>th</sup> Philippine Birdfest and Bird Conservation Forum**

KFI co-sponsored this year's Philippine Birdfest in Puerto Princesa City on 11-13 September 2008. JTupas, Education Officer conducted interactive lectures that highlighted our slogan "Share a Place to Live". A puppet show was organized as well together with the appearance of our famous Kataly mascot.

During the festival, the first Bird Conservation Forum was held. PCCP/KFI was invited to talk about illegal wildlife trade in Palawan based on our continuing studies in southern Palawan on this issue. This presentation stirred media attention. On the 14<sup>th</sup> September, PCCP-sponsored birdfest participants to visit Rasa Island Wildlife Sanctuary and other birding areas in Narra, Palawan.

Birdfest is a yearly activity of the Wild Bird Club of the Philippines and is participated by national and international birding groups and enthusiasts.

#### **Mayor of Narra represents Rasa in London**

Rasa Island Wildlife Sanctuary (RIWS) was represented by former Narra Mayor Lucena Demaala in London during the World Travel Market. The Philippine Department of Tourism (DOT) launched the guidebook "Birdwatching in the Philippines Volume 1" on 11<sup>th</sup> November at the Marriot, Grosvenor Square during this year's World Travel Market from 10-13 November 2008 in London. RIWS was included in this top list of birdwatching sites in the Philippines.

The participation of the local government of Narra to events like this helps boost and strengthen local government's participation in conservation.



**Figure 21.** Former Mayor of Narra Lucy Demaala successfully promoted Rasa Island Wildlife Sanctuary during the World Travel Mart in London. ©Municipality of Narra

The former mayor was provided with a PowerPoint presentation on Rasa and the cockatoos and was provided with needed information on daily basis as the whole activity went on in London. KFI prepared brochures, posters and related materials for the mayor. Upon return from the trip, the former mayor was all praise to the joint efforts of KFI and the local government to protect and conserve the Katala and its habitat.

#### **Palawan Pangolin Studies**

KFI collaborated with different organizations abroad (see previous report) to conduct the "Phylogeny and Taxonomic Status of the Palawan Pangolin" and the "Population Surveys of Southeast Asian Pangolins" studies. In October interviews with hunters to learn more about the occurrence and threats of the species were conducted in Roxas, known for rampant wildlife collection. A proposal addressing the conservation status of the species in Palawan was submitted to SeaWorld and Busch Gardens Conservation Fund.

#### **Papers published, submitted for publication to relevant journals, relevant reports and media mileage**

- Widmann, Peter and Indira Widmann. The cockatoo and the community – Ten years of Philippine Cockatoo

- Conservation Programme. Birding Asia (10) 2008: 23-29.
- PCCP @ 10. Published on the 10<sup>th</sup> Anniversary of the Philippine Cockatoo Conservation Program, Katala Foundation, Inc., December 2008.
  - Widmann, Indira, Peter Widmann, Sabine Schoppe, Deborah van den Beukel and Merlin Espeso (eds.), *in press*. Conservation Studies on Palawan Biodiversity – a compilation of researches conducted in cooperation with or initiated by Katala Foundation, Inc., launched December 2008. This volume includes the following articles:
    - ✓ Widmann, Indira Dayang Lacerna, Deborah D. Villafuerte, Peter Widmann and Siegfred H. Diaz. From species lists to cockatoo reserves – The example of the community-based protected areas on Dumarán Island, Palawan, Philippines.
    - ✓ Widmann, Peter, Rolito M. Dumalag, Indira Dayang L. Widmann, Klaus Lachenmaier, Siegfred H. Diaz, Deborah D. Villafuerte and Joie D. Matillano. Observations on the mammals of lowland forests in the Pagdanan Range and Dumarán Island, Palawan, Philippines.
    - ✓ Matillano, Joie, Peter Widmann, and Klaus Lachenmaier. The Birds of Pagdanan Range, Lake Manguao and Malampaya Sound, Northern Palawan, Philippines.
    - ✓ Schoppe, Sabine. Key conservation amphibian species along Pagdanan Range, Northern Palawan, Philippines.
    - ✓ Schoppe, S. and D. Acosta. First notes on the herpetofauna of the Culasian Managed Resource Protected Area, Culasian, Rizal, Palawan, Philippines.
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- Habitat, Forest Destruction.. Studies say Palawan animals' extinction looms by Redempto Anda. Philippine Daily Inquirer, posted 14 Sept. 2008.
- Radio guestings at DYPR, Puerto Princesa from September to December 2008 on topics on wildlife trade and other threats to Katala and on the 10<sup>th</sup> anniversary of the PCCP These radio guestings were in cooperation with the Environmental Legal Assistance Center (ELAC).
- *Future Looks Brighter for the Philippine Cockatoo.* Endangered

Philippine cockatoo now numbering about 180 after conservation efforts start working by Alex Villanueva Jr. <http://www.pr-inside.com/endangered-philippine-cockatoo-now-numbering-r656255.htm>

- Radio guesting at DYPR and DYSP, Puerto Princesa on 05 and 08 December 2008 respectively on status of the Philippine cockatoo and updates of the PCCP after ten years of project implementation on Palawan.

#### **Other remarkable records/events**

- One Philippine cockatoo was sighted by a visiting bird photographer in Cove 2, Lagen Island on 03 September 2008. Mr. Manny Illana reported he could not mistake the bird with its crest. The island was the translocation site in 2007.
- On 16 September, Dumarán wardens rescued a young hornbill with eye injury probably caused by a gecko bite. After treatment and regaining stability, the hornbill was released and successfully fledged.
- Tagging and releasing on green turtle at Borbon Beach, Panacan, Narra on 24 September 2008;
- Discovery, rescue and documentation of marine turtle hatchlings kept from an individual in Panacan, Narra, Palawan on 22 September 2008; Hatchlings were released on 03 October 2008;
- Documentation on the release of a whale shark caught in between Arena and Rasa Islands on 04 October 2008;
- Release of 49 green turtle hatchlings in Antipuluan, Narra on 04 October 2008

**Summary of relevant seminars, expeditions and workshops organized and attended**

- Zookeepers Workshop, Puerto Princesa City, Palawan, 08-11 September 2008;
- 4<sup>th</sup> Philippine Birdfest, Puerto Princesa City, 12-14 September 2008.
- PSU Biodiversity and Conservation Week, 15-19 September 2008.
- National Conference and Training Needs, Assessment on Forest and Climate Change in the Philippines, Crowne Plaza, Quezon City, 29-30 September 2008.
- International Expert Workshop on CITES Non-detriment Findings, Cancun, Mexico, 17-22 November 2008.



**Figure 22.** KFI/PCCP booth at the PSU Biodiversity Week in Puerto Princesa City. ©SSchoppe

**Equipment Status**

- Ten second-hand binoculars were received by KFI for Rasa from the Wild Bird Club of the Philippines through its President Michael Lu during the 4<sup>th</sup> Philippine Birdfest.
- Project car underwent several checkups incl. among others tire rotation, wheel alignment, brake service, diesel filter change.

- Project boats repaired after the typhoon in November.
- Office desk top computers in PPC and Narra underwent several repairs and need soon to be replaced.
- Office printer in PPC needs immediate replacement. New scanner was bought.
- KEEC premises in Dumarán treated from termites.

**Implications for further work**

- In Narra, continued capacity building for the members of the Protected Areas Management Board (PAMB) is a must. Eventually, there must be mechanisms in place to take over most cost and operational activities from KFI. Specifically, to take over effectively the responsibilities over the wardening scheme. Meanwhile, KFI along with PAMB and PAWB-DENR jointly will venture into developing the Management Plan for the Rasa Island Wildlife Sanctuary that will help ensure its existing framework, preserve its eco-touristic quality and hopefully can generate enough funds to sustain activities.
- PCCP will in due course help the national government in particular the PAWB to develop the Philippine Cockatoo Five-Year Action Recovery and Conservation Plan that shall encompass all needed scientific data, research, tourism potentials, translocation protocols and other relevant issues.
- With the current situation of threats on security of both wardens and staff assigned coupled with the complacency of government agencies and authorities that illegal activities are indeed under control, the PCCP Rizal project considers changing strategies to stimulate more active involvement of other organizations interested in the site. The move for

effective integration of the wardening scheme to the CI-initiated Mt. Mantalingahan Protected Landscape could be intensely pursued.

### **Planned targets and activities for the next reporting period**

The following are the major outputs and deliverables for the 2009-2010 PCCP implementation:

#### Objective 1: Translocation planning for Philippine cockatoos

- Develop a translocation protocol involving relevant stakeholders.
- Continue assessment of potential translocation sites and potential remnant populations within the historical range.
- Prepare translocation site, e.g. through conservation education, habitat restoration, legal frame conditions, once a suitable site is identified.
- Further improve facilities to temporarily accommodate birds suitable for translocation (see Objective 7).

#### Objective 2: Conservation of cockatoo population on Pandanan Island, Balabac initiated

- Establish warden and nest protection scheme.
- Establish linkages to local stakeholders, particularly local government, poachers, farmers, private entities and school teachers.
- Initiate conservation education.
- Conduct research on nest sites and monitor roost site.
- Initiate small livelihood project as confidence building measure.

#### Objective 3: Conservation of cockatoo population on Rasa Island, Narra continued

- Continue warden scheme.
- Assist and capacitate Protected Areas Management Board in the

management of the Philippine Cockatoo and Rasa Island Wildlife Sanctuary and stepwise hand over responsibilities.

- Intensify conservation education for stakeholders, particularly in mainland areas which are regularly frequented by cockatoos.
- Integrate conservation priorities of Rasa in the new development strategy of Narra, particularly regarding tourism infrastructure.
- Continue research on conservation-related aspects of cockatoo biology on Rasa.

#### Objective 4: Conservation of cockatoo population on Dumaran Island, Dumaran continued

- Continue warden scheme.
- Assist and capacitate Local Protected Areas Management Committee in the management of the Philippine cockatoo, as well as Omoi and Manambaling Cockatoo Reserve.
- Create buffer zones around existing cockatoo reserves, preferably including creation of alternative livelihood options.
- Conduct conservation education and assist in community empowerment for stakeholders.
- Continue research on conservation-related aspects of cockatoo biology, particularly habitat restoration.

#### Objective 5: Conservation of cockatoo population in Culasian Managed Resource Protected Area, Rizal continued

- Continue warden scheme.
- Assist and capacitate local Protected Areas Management Committee in the management of the Philippine cockatoo and Culasian Managed Resource Protected Area.
- Conduct conservation education for stakeholders.
- Continue research on conservation-related aspects of cockatoo biology.
- Facilitate hand over to local stakeholders, assist in acquisition of

tenurial instruments, and secure alternative funding sources.

Objective 6: Polillo Islands Parrot Project promoted

- Continue warden scheme for Philippine cockatoo and include other parrot species.
- Continue conservation education for threatened parrot species within the archipelago.
- Assist in capacity development of local stakeholders for management of threatened parrot populations and their habitats.

Objective 7: Katala Institute for Ecology and Biodiversity Conservation further developed

- Continue development of quarantine area, off- and on-show aviary to accommodate rescued cockatoos

and/or cockatoos destined for translocation.

- Improve standard of animal husbandry through employment of full-time zoo keeper and continued capacity building of local partners as assistant keepers.
- Continue landscaping with native species propagated in the Katala nursery.
- Further develop a conservation education programme for local school children and students within the facility.
- Continue submitting proposals to other potential donors.

## Worksheet September-December 2008, PCCP, Palawan, Philippines

KEY PROJECT ACTIVITIES	DATE	INVOLVED PERSON(S)
Conduct lecture to elementary students	Sep.01.08	Milai P.
Reports consolidation and writing	Sep.01-05.08	SHD
Preparation for staff and PAMB meeting	Sep.01.08	JMT, SS
Deworming of turtles	Sep.01.08	DA
Staff meeting	Sep.02.08	IDLW, SHD, IR, JMT, MP, SS, DA
KIEBC inspection (Turtle and bird health)	Sep.02.08	SS, SHD, DA, IDLW
Conduct lecture for KEEC library visitors	Sep.02.08	Milai P.
Facilitation and attendance to RIWS 10 <sup>th</sup> PAMB Regular Meeting	Sep.02.08	SHD, IR, SS
Finances, PCCP progress report	Sep.03.08	SS
Meeting with Merlin and Phillip for lay out of PCCP @ 10	Sep.04.08	IDLW
Writing and consolidating Dumaran reports	Sep.03-04.08	MP
Processing documents for SEC update	Sep.03-16.08	JMT
Facilitates mainland volunteers meeting	Sep.04.08	SHD
FGD at So. Omoi	Sep.04.08	Milai P.
Encoding morphology data of all turtle measured in August	Sep.04.08	DA
Preparation of materials for 4 <sup>th</sup> Philippine Bird Festival	Sep.05-11.08	JMT
Meeting and planning with puppeteers for Bird Festival	Sep.05.08	IR
IEC at Brgy. San Isidro with SKM	Sep.06.08	IR
Submission of PCCP proposal 2009-2010	Sep.08.08	IDLW
Securing of transport permit for turtles	Sep.08.08	IR
MOA signing Pangolin genetics	Sep.08.08	SS
Zookeeper workshop	Sep.08.-11.08	DA, M. Batac, L. Alisto
Encoding Kalikasan and Kalabukay festivals survey data	Sep.10.08	JMT
Preparing area for nursery transfer in Omoi, Dumaran	Sep.10.08	MP
Making lecture outlines and visual aids	Sep.11.08	Milai P.
Transfer of Blue and Pinky Pan to respective cages	Sep.11.08	SHD, wardens
Pandan Report Writing	Sep.10-20.08	IDLW
Guiding and assistance to zookeepers visit to RIWS	Sep.12.08	SHD, DA
Cockatoo roost count	Sep.12.08	SHD
Facilitation and participation to 4 <sup>th</sup> Philippine Bird Festival	Sep.12-14.08	SS, JMT, IR, RMC
Preparation or refreshments for birdwatchers to visit RIWS	Sep.13.08	IR
Assistance to 4 <sup>th</sup> Philippine Bird Festival delegates visit to RIWS	Sep.14.08	SHD, IR
Rescue and release of one Hornbill	Sep.15.08	MP
Freshwater turtle hatchling measurements in KIEBC	Sep.15.08	DA
Treatment and maintenance of KEEC/field house	Sep.15-16.08	MP
Participation to PSU Biodiversity and Conservation week	Sep.15.-19.08	SS, JMT, RMC
Anniversary publication preparation, publication writing (Herps of CMRPA). PCCP Progress report.	Sep.15-16.08	SS
Flashing of nests	Sep.17.08	MP
Lay-outing and drafting PFTCP fact sheet	Sep.18.08	JMT, SS
Facilitate installation of 4 artificial nest boxes	Sep.21.08	SHD
Lagan roost site visit: 16 cockatoo individuals	Sep.22.08	MP
Facilitates rescue and disposition of one marine turtle	Sep.22-24.08	SHD, IR DA
Traveling to PPC for PCSD Adjudication Board Hearing	Sep.22-25.08	Milai P.

Preparation for LPAMC meeting in Rizal, disbursement of salaries for Rizal wardens	Sep.22-25.08	RMC
Flashing of hornbill nest	Sep.24.08	MP
Attendance to PCSD Adjudication Board hearing	Sep.24.08	SS, JMT, Milai P.
Rescue and release of one Green turtle	Sep.24.08	SHD, IR
Installing of 2 artificial nest boxes	Sep.24.08	SHD
Guiding and assistance to Japanese visitor	Sep.24.08	SHD, IR
Attend Medical Doctors Conference with Senator Zubiri	Sep.25.08	SS
Nursery enhancement and maintenance	Sep.25.08	SHD
Flashing of Kilit nests	Sep.25.08	MP
Progress report writing. Preparations for KFI attendance of climate change workshop. TCF progress report drafted.	Sep.26.08	SS
Attending conference re: Climate Change	Sep.29-30.08	SHD
Preparation of 3 <sup>rd</sup> SMR	Sep.30.08	JMT
Visitation to phenology plots, wardens meeting	Sep.30.08	MP
PCCP 10th year publications preparations: printing press contacts, logistics, coordination of all articles for the scientific publications	Sep.01-30.08	IDLW
TCF progress report submitted. PCCP progress report. SDENRO Jan to Mar Narra. 1st revision pangolin paper.	Sep.30.08	SS
PTPR Report Writing	Sep.01-17.08	IDLW, SS, JMT
Posting of receipts	Oct.01-10.08	JMT
Revision of BP herp paper. Submitting CMRPA herp paper for review.	Oct.02.08	SS
Printing and submission of PTPR	Oct.02-08.08	SS, JMT
Submission of ZAP report	Oct.04.08	DA
Planning for Katala Fun Day in Narra	Oct.02-09.08	JMT, IR, SHD
Wardens and volunteer meeting	Oct.02.08	SHD
Finalization of publication Cruz et al.	Oct.03.08	RMC, SS
Facilitates tagging and release of 49 marine turtle hatchlings	Oct.04.08	SHD, IR, DA
Radio guesting ELAC re. wildlife trade in Southern Palawan	Oct.04.08	RMC
Writing and consolidating Dumaran reports	Oct.03-04.08	MP
Consolidating turtle survey data	Oct.06.08	SS, DA
Revision of BP herp paper and submission for publication. Compile info on <i>S. leytensis</i> in KIEBC. Distribution of reports and turtle guides	Oct.07.08	SS
Budget preparation for turtle long term study extension	Oct.08.08	SS
KIEBC inspection. Water samples for analysis.	Oct.09.08	SS, DA, SHD
KFI Narra staff meeting	Oct.09.08	SHD, IR, DA, SS
Attendance to Dumaran ECAN board meeting	Oct.09.08	MP
FGD at Barangay Bohol proper	Oct.10.08	Milai P.
Cockatoo roosting site survey, Dumaran	Oct.10-11.08	MP
Lagan roost site visit:12 cockatoo individuals	Oct.13.08	MP
Encoding and finalizing reports	Oct.13-17.08	JMT
Anniversary preparations. Reports	Oct.13.08	SS
Facilitates CENRO Tactay and Deputy PASU's visit at KIEBC	Oct.14.08	IR
Wardens meeting and nursery enhancement	Oct.15.08	SHD
Surveying cockatoo sightings at Pachery area	Oct.16.08	MP
Preparation for Katala Fun Day program	Oct.16-23.08	JMT
Meeting with NYOFEC	Oct.16.08	IR
Preparation and display for Katala Fun Day	Oct.16-17.08	SHD, IR
Water quality assessment KIEBC	Oct.16.08	SS

Proposal writing for extension of long term <i>S. leytensis</i> surveys, Preparation for Pangolin project	Oct.17.-19.08	SS
Water sampling in KIEBC	Oct.17.08	IR, DA
FGD and assistance to people visiting booth during Palay Festival	Oct.18-25.08	SHD, IR
Facilitates environmental film showing during Palay Festival	Oct.18-25.08	SHD, IR
Guideline preparation for WCSP host organizations	Oct.19.08	IDLW
Surveying cockatoo sightings at Taned mangroves	Oct.20.08	MP
Preparation for PCCP anniversary	Oct. 20-22.08	SS
Submission of turtle research proposal to IDEA WILD	Oct.20.08	DA
Submission of proposals to extend long term pop. Studies of <i>S. leytensis</i> . Anniversary preparations.	Oct.21.08	SS
Survey: sightings of cockatoos, freshwater turtles & pangolins in Roxas	Oct.21.-27.08	DA
Blood and feather samples transport permit PPC-Mnl	Oct.22.08	SS
BP publication. KIEBC fence proposal for Narra. Prep for floral inventory with WPU forester	Oct.23.08	SS
Posting of September receipts	Oct.21.08	JMT
FGD at So. Casipulo	Oct.21.08	Milai P.
FGD for SKM-DC re-organization	Oct.22.08	MP
Facilitates Katala Fun Day during Palay Festival 2008	Oct.24.08	SHD, IR, JMT, RMC, SS
Phenological survey in Dumaran	Oct.24-29.08	MP, and WPU forester
KIEBC fact sheet. Preparation PAMB. Workplan Rasa.	Oct.28.08	SS
Facilitates PAMB concerns	Oct.28-29.08	JMT
Cockatoo roost count	Oct.29.08	SHD
Disbursement of salaries for Rizal wardens	Oct.29-30.08	RMC
Calamianes PIC. Workplan PFTCP	Oct.29.08	SS
PTFCF meeting, Fleuris. Inquiring for other funding sources	Oct.30.08	SS
SEP clearance application Calamianes	Oct.31.08	SS
Preparations and follow up for articles for KFI scientific publication	Oct.01-31.08	IDLW
Verification of cockatoo sightings in Capayas	Oct.30-31.08	MP
Lay-outing of KIEBC fact sheets	Oct.31.08	JMT
Visitation to phenology plots	Oct.31.08	MP
Finalized and submission of Narra consolidated reports	Nov.03.08	SS, IR, JMT
Canvassing of materials and other matters for PCCP anniversary	Nov.04.08	JMT
Writing and consolidating Dumaran reports	Nov.04-07.08	MP
Katala boat safety inspection	Nov.04.08	IR
Writing and consolidating Dumaran reports	Nov.04-07.08	MP
Preparation of research proposal for Cuora amboinensis. Calamianes SEP clearance	Nov.04.-05.08	SS
Conduct lecture to KEEC library visitors	Nov.05.08	Milai P.
Summarizing financial report	Nov.05.08	JMT
Turtle enclosure improvement	Nov.06-08.08	SHD, DA
Conduct lecture to college students	Nov.06.08	Milai P.
Preparation for LPAMC Dumaran	Nov.06-10.08	SS, MP, JMT, IDLW
PCCP 10 <sup>th</sup> Anniversary preparations	Nov.10-28.08	JMT
Attendance to Dumaran ECAN board meeting	Nov.11.08	MP, Milai P.
Participation and attendance to ECAN board meeting in Dumaran	Nov.12.08	SHD, MP, Milai P.
Preparation for PAMB meeting, Narra	Nov.12-13.08	IR
Prepare and facilitate 6 <sup>th</sup> LPAMC regular meeting in Dumaran	Nov.12.08	SHD, MP, Milai P.

Dumaran wardens meeting	Nov.12.08	SHD, MP, Milai P.
Securing of transport permit from DENR Roxas for herbarium samples	Nov.13.08	SHD
Verification of illegal activities in Casipulo, Dumaran	Nov.15.08	MP
Attendance of CITES NDF workshop in Mexico	Nov.15.-25.08	SS
FGD at So. Omoi, Barangay Sto. Tomas	Nov.17.08	MP, Milai P.
Narra wardens meeting and planning on PCCP anniversary participation	Nov.17.08	SHD, IR
Securing of transport permit for cockatoo blood and feather samples	Nov.17.08	JMT
Meeting with Narra Municipal Administrator re: Rasa as part of Top 12 Birding areas in the Philippines	Nov.18.08	SHD
Sending cockatoo blood and feathers samples to PAWB	Nov.18.08	JMT
Lagan roost site visit:11 cockatoo individuals	Nov.18.08	MP, Milai P.
FGD at So. Lagan, lecture to Grade IV & V students	Nov.18-20.08	Milai P.
Community visit at Malinao II	Nov.19.08	SHD
Pick up cockatoo blood & feather samples, meeting with Dr. Lim, application for CITES permit for the samples, meeting with KFI Pres. Miguel Zubiri	Nov.20.08	IDLW
KIEBC turtle quarterly growth monitoring	Nov.20.08	DA
Conduct lecture to Grade VI students	Nov.21.08	Milai P.
Meeting with Merlin re PCCP anniversary publications	Nov.21.08	IDLW
Cockatoo sighting survey at Barangay Bohol	Nov.24.08	MP
Bank transactions, insurances, fund sourcing for anniversary	Nov.24.08	IDLW
Planting of barrier trees at KIEBC quarantine area	Nov.25.08	SHD
Repairing of roof and cleaning at KEEC	Nov.26-27.08	MP
Measuring of seedlings at KIEBC nursery	Nov.26.08	SHD
Preparation for PAMB	Nov.26.08	SS
Attendance to PCSD hearing re: Fidenci case	Nov.27.08	SS, Milai P.
Under brushing and planting of pioneering trees at aviary & enclosures	Nov.27.08	SHD
Cockatoo survey at Pachery area and Baras, phenology plots visit	Nov.28-29.08	MP
Proposal writing, finances	Nov.28-30.08	SS
TWG meeting	Nov.30.08	MP
Cockatoo roost count	Nov.30.08	SHD
Rizal wardens meeting and planning for PCCP anniversary	Nov.30.08	IR
Anniversary preparations: logistics, publications, program, fund raising	Nov.01.30.08	IDLW, SS
Making visual aides for lecture	Dec.01.08	Milai P.
Ocular inspection at Villarias area	Dec.01.08	SHD
Drafting of research proposal for Cuora amboinensis, Submission of fencing proposal for Narra municipality	Dec.01-02.08	SS
Facilitate visit of Dr. Rebong at KIEBC, meeting and planning	Dec.02.08	SS, SHD
Facilitates 11 <sup>th</sup> PAMB Regular Meeting	Dec.02.08	SS, SHD, IR
Narra wardens and volunteer meeting	Dec.02.08	SHD
Consolidating Dumaran reports	Dec.02-03.08	MP
Consolidating reports	Dec.03-06.08	SHD
Paying of bills and taxes, bank transactions, postage	Dec.02-04.08	IDLW
Cockatoo survey at Barangay Bohol, Lecture to Grade 1V students	Dec.04.08	MP, Milai P.
Facilitates and attendance to special meeting with PAMB Co-Chairman and PASu	Dec.04.08	SS, IR
DYPR radio guesting re PCCP anniversary	Dec.05.08	IDLW
File affidavit re case against ESI	Dec.05.08	SS

Lagan roost site visit: 10 cockatoo individuals, garden preparations	Dec.08-09.08	MP
Calamianes Project Defense at Provincial Env't. Committee Hearing	Dec.10.09	IDLW
Guiding and assistance to visitor at RIWS	Dec.10.08	SHD, IR
PCCP anniversary preparations: logistics, program, tarps, plaques, venue, food, webpage preparations and editing and etc	Dec. 01-11.08	IDLW
Guiding and assistance to visitors at mainland area	Dec.11.08	SHD
KFI board meeting and election	Dec.12.08	SHD, SS, IDLW, PW, JMZ
Assistance to wardens application of drivers license	Dec.12.08	IR
Assistance to wardens application of SSS ID	Dec.12.08	JMT
PCCP 10 <sup>th</sup> Anniversary Celebration and Christmas party, DYSP radio guesting with Sen. Zubiri	Dec.12.08	all staff and board members and wardens and volunteers
Post anniversary activities & bringing Sen. Zubiri to airport	Dec.13.08	IDLW, PW
Consolidation and writing of reports	Dec.14-22.08	MP, Milai P.
Narra wardens meeting	Dec.15.08	SHD, IR
Paying of bills, bank transactions and other office matters	Dec.15-19.08	JMT
KSK re Fidenci case. Paltubig re drilling in KIEBC.	Dec.15.08	SS
Fidenci Hearing.	Dec.15.08	SS, IDLW, Milai P., MP
Staff evaluation Dumarán	Dec.16.08	SS, IDLW, Milai P., MP
Meeting with Carpus re volunteers for PCCP	Dec.16.08	SS, IDLW, PW
Meeting with building planners at KIEBC	Dec.17.08	SHD
Inventory of materials and equipment in Narra	Dec.18.08	IR
CONSO reports. Year end reports.	Dec.18.08	SS
Staff evaluation Narra.	Dec.19.08	SS, IDLW, SHD, IR, DA
KIEBC inspection	Dec.19.08	SS, IDLW, PW
Computer maintenance and check-up	Dec.19.08	IR
Photo display closure and collection of photos	Dec.20.08	IDLW, PW
Facilitate aviary improvements	Dec.21-22.08	SHD
Evaluation of performance	Dec.22.08	JMT, SS, IDLW
Inventory of SKM Agri-equipments	Dec.22.08	IR
Training of assistant turtle care taker needed for Christmas break	Dec.22-23.08	DA
Transfer to Blue to Pinky Pan aviary; Narra wardens meeting	Dec.23.08	SHD, wardens
Guiding and assistance to RIWS	Dec.29.08	SHD
Lagan roost site visit: 11 cockatoo individuals	Dec.29.08	MP
Submission of Aviary Report to SPS	Dec.31.08	SS
Financial report and PTPR writing	Dec.31.08	IDLW, JT, SS
Maintenance and operation of KEEC and library	Sep.08 – Dec.08	Milai P.
Improvement and enhancement in aviary at KIEBC	Sep.08 – Dec.08	SHD, MB
Overseeing construction and landscaping at KIEBC	Sep.08 – Dec.08	SHD
Communication and liaising to offices	Sep.08 – Dec.08	JMT, IR, SS, IDLW
Regular maintenance of turtles and enclosures	Sep.08 – Dec.08	DA, wardens, SHD
Program operations and management	Sept - Dec 08	IDLW, SS

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## ANNEX 1

Photo documentation during the 10<sup>th</sup> PCCP Anniversary Celebrations at Kamarikutan Galeri at Kape, Puerto Princesa City, Palawan





