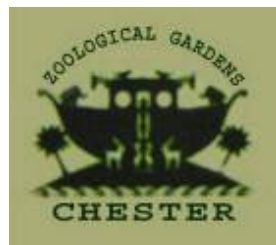




**In-Situ
Conservation Project
Phase VI**

Technical Progress Report

May - August 2008



By



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Siegfried Diaz, Janice M. Tupas**

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Puerto Princesa City, Palawan, Philippines**

September 2008

TECHNICAL PROGRESS REPORT

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

PROJECT DURATION: May - August 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 (PCSD)
Polillo Islands Biodiversity Conservation Foundation, Inc.
Concerned agencies and authorities

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EXECUTIVE SUMMARY

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

1. Thirty-two nest trees were intensively monitored this year of which six were newly-discovered.
2. Feather and blood sampling (under Gratuitous Permit No. 2008-002) was completed and yet to be sent for laboratory tests e.g. DNA sexing and Pbfd tests.
3. Breeding season assessment meeting was conducted in August and suggested improvements for the next breeding season 2009.
4. An adult cockatoo with silver ring no. 0039-01 was confiscated by wardens and authorities from a resident in Bgy. Princess Urduja, mainland Narra in June. The bird had a mark allegedly from sling shot. It was turned over to PWRCC.
5. Wardens conducted several focus group discussions and information campaigns as cockatoos had been frequently sighted in big numbers on mainland Narra. Patterns of movements to the mainland Narra indicate that cockatoos can be observed on the mainland year-round. Whilst this indicates successful nest protection scheme on Rasa, the bigger challenge is now to ensure that dispersed individuals are safe on the mainland. Intensive campaigns are conducted along with other local partners.
6. Memorandum Order No. 061 series of 2008 was signed by Narra Mayor Demaala requesting all barangay captains, officials and tanods (barangay guards) to help in monitoring the cockatoos in their respective areas.
7. Synchronized counts at mainland stations were conducted to assess numbers of foraging cockatoos arriving and exiting to Rasa.
8. Among highlights of the regular PAMB meeting conducted in 5th May was the granting of 200,000 pesos municipal appropriation for Rasa Island in 2009 and the approval of the grant of 75,000 pesos for the Katala Festival 2008 in June from the municipality through the Office of the Mayor.
9. On 19-20 June 2008, the 2nd Katala Festival was successfully celebrated with full support from the local government of Narra and other private entities from Narra. Festival survey results revealed positive effects of festivals on residents.

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

10. Four active cockatoo nests were monitored from two cockatoo reserves in Dumaran; unfortunately only two successfully fledged this year. One nest had four eggs in the clutch; however all were preyed reportedly by geckos.
11. In May, one Palawan hornbill nest fell on ground due to strong winds; consequently, the hatchling and mother inside the nest died probably due to impact.
12. Phenological study on food and nest providing trees within two cockatoo reserves had commenced this reporting period.
13. The 4th Kalabukay Festival in Dumaran was successfully celebrated with the municipal foundation anniversary on 16-18 June 2008.
14. Activities at the Katala Environmental Education Center (KEEC) had reached ca. 300 students from May to August 2008.

15. The Local Protected Area Management Committee (LPAMC) convened on 7th August for its regular meeting with the Municipal Mayor as presiding officer.
16. Five local partners of PCCP from Dumarán attended the Integrated Farming Bio-System Training given by Shell Foundation in August 2008. This was facilitated by the linkage established with Shell Foundation recently.

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

17. Four cockatoo fledglings were confirmed from Rizal this breeding season. The success of cockatoo breeding this year was complemented by hiring two additional local guards near nest trees apart from regular warden monitoring the area.
18. A total of 116 out of 126 nest trees were occupied this breeding season with approximately 236 hatchlings of other cavity nesting species observed to have successfully fledged.
19. The latest illegal activity haunting Rizal is on illegal timber trade for Malaysia. Illegal trade of wildlife is still rampant. A tabular presentation is given.
20. The threats received by our staff and wardens had been alarming. In few cases, staff had to be pulled out from site for security reasons. As capacity building measure, we continue providing logistical support to PNP Rizal to pursue filing of both criminal and administrative cases against perpetrators.
21. Executive Order No. 007, series of 2008 was approved on 28th May 2008 by the Municipal Mayor. This order creates the Environmental Protection and Management Council to help abate illegal activities on ground.
22. On 10th June, regular LPAMC meeting was conducted with the Municipal Mayor as presiding officer.

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

23. 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.
24. 24 eggs were either missing or taken out because of infertility, some were rotten and cracked, predated or cannot be traced due to deepened nest chambers. Six hatchlings were lost to predators (probably white-bellied sea eagle and owl).
25. Numbers of breeding pairs, eggs, hatchlings and fledglings on Rasa show an upward trend since 2000, with 2008 having the highest number with 32 pairs, 78 eggs, 56 hatchlings and 49 fledglings, respectively.
26. Average number of eggs, hatchlings and fledglings per breeding pair on Rasa remained relatively stable as we compare data from 2000-2008. Out of 16 pairs, three produced clutches with four eggs, a phenomenon which so far is not recorded from captive Philippine cockatoos. After 2002 four eggs in one clutch only we observed in one pair (out of 24) in the year 2006.
27. In contrast to the results presented last year, with the addition of the data sets from 2007 and 2008 it appears that on Rasa the number of fledglings per pair remains relatively stable over a wide range of precipitation (ca. 300mm to 800mm from January to June).

28. We assume that flowering and fruiting of most trees on Rasa, including the ones providing food for cockatoos is correlated to precipitation (but data sets for phenology are still too small to test this statistically).
29. In total we have 56 identified nest trees on Rasa including the six new nests discovered (two *Garuga floribunda*, three *Sonneratia alba*, and one *Sterculia* sp. or Gindaon as known locally).
30. At the traditional roost site on Rasa, the counts reached 205 individuals in June, the highest ever since start of the programme
31. On mainland Narra, highest observation varied in two stations; in Marcelo area where numbers reached 80 individuals in May while in Borbon area numbers reached to 83 birds. Noteworthy are the new sites visited by cockatoos on the mainland and mostly in populated areas. Sites are mainly characterized by presence of Malunggay *Moringa oleifera*, a favorite local food source.
32. Sporadic synchronized counts at mainland stations were done from May to August. Arrival and exit counts as well were done from May to August at Borbon station. This is the shortest route from Rasa Island to mainland Narra which is regularly taken by the cockatoos.
33. In Dumaran, we had a total of 10 eggs; however only two eggs successfully hatched, fledglings banded and fledged. Seven eggs were preyed and one was infertile. One clutch had four eggs but unfortunately failed due to predation by probably a gecko.
34. Four out of seven nest trees were occupied in Dumaran this year. One nest tree is now being occupied by two other species: Hill myna and an owl while another nest tree is shared with a Blue-naped parrot.
35. Daily counts at the traditional roost site in Lagan had reached 20 individuals in July and August this year.
36. Two small island surveys were conducted on Dumaran. These islands were reported to have sightings of cockatoos feeding or roosting. Despite no cockatoos were confirmed during survey, said habitats are potential because of presence of food-providing trees e.g. fruiting Narra and Pagatpat *Sonneratia alba*.
37. This year we have confirmed four hatchlings in all from Rizal; two from inside the CMRPA and two from Ransang.
38. At least two individuals of cockatoos were sighted during the course of the monitoring visit on Patnanungan nest trees in Polillo. This year did not reap any documented successful fledgling or banded nestlings from the site.
39. Identified nest trees were measured, characterized, flashed and marked with signages as protected by authorities.
40. Series of conservation education activities were completed within the period covering not only Patnanungan but also Burdeos municipalities in the Polillo Group of Islands.

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

41. Pavel Hospodarsky, a visiting zookeeper at KIEBC, spent two days with us to discuss on improving the facilities at the center and as well help us plan for the aviary design and porcupine enclosures to be established within this year.

42. Manual excavations to backfill the site for the cockatoo aviary and the porcupine enclosure were completed.
43. The major landscaping activities in the center apparently are still undone due to unpredictable weather conditions in Narra and the availability of the equipment.
44. Repairs of the caretaker's house, water pump and establishment of temporary enclosures for sick turtles were completed.
45. As of August 31, 2008 KIEBC holds 35 *Siebenrockiella leytensis*, 19 *Cuora amboinensis*, 11 *Cyclemys dentata*, and 1 *Dogania subplana*. Growth was monitored twice in the reporting period, once in May and once in August.
46. A total of 5 *S. leytensis* eggs were encountered in the reporting period. Most of them were not properly laid but just deposited in the water or in the mud. All did not develop and were discharged.
47. We encountered health problems in the purely aquatic turtles after freshwater intrusion from surrounding wetlands in connection with continuous rain at the end of June. Several veterinarians were consulted to avert further losses. Physical and histopathological tests were conducted as well.
48. A one-week old cockatoo hatchling recently confiscated from Pandanan, southern Palawan was turned over to KIEBC for care by the PWRCC. The hatchling was confiscated in May by the survey team who went to Pandanan.
49. The hatchling is now stable, healthy and will soon be moved to a bigger enclosure to allow flight practice.
50. "Blue" was observed feather plucking while "Violet" lost its red feathers on the vents. Adult birds are now fed with variety of food items ranging from local availability to treats like sunflower seeds. They are also provided with fresh foliage, perches, and drift wood to keep them busy.
51. Two of the cockatoos at KIEBC showed aggression but this was immediately resolved after isolation of aggressive bird from other individuals. All four birds are healthy.
52. Two proposals were approved this year for implementation: one is the enclosure of Palawan porcupine and the other for the aviary of the cockatoos for public display.

Other highlights

53. The rapid cockatoo survey in Pandanan, southern Palawan has potentials for project implementation. Three known poachers were interviewed and involved in the survey and were willing to cooperate if a project is implemented in the area.
54. Rasa Island Wildlife Sanctuary was selected as one of the top 13 birdwatching sites in the Philippines recently by the Department of Tourism, Philippines.
55. Two publications are in process to highlight the 10th anniversary celebration of the Philippine Cockatoo Conservation Programme.
56. Two pangolin studies had sprung from the initial works conducted in cooperation with TRAFFIC Southeast Asia. One on phylogeny and taxonomic status of the Palawan pangolin and the population survey of Southeast Asian pangolins.
57. A proposal on buffer zone management was submitted to Shell Foundation for funding in 2009.

58. KFI founding member and board secretary was among the 21 scholars from 21 different countries who received the scholarship program "Monitoring and Communicating Biodiversity" at Shrewsbury, UK on 8-18 August 2008. This opportunity gave Debbie a chance to visit Chester Zoo through the generous help of Dr. Roger Wilkinson.
59. Two papers were submitted for publication, two radio guestings were completed and two national TV documentaries/features were aired.

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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 |
| GENRO | Community Environment and Natural Resources Office(r) |
| CEPA | Conservation des Espèces et Des Populations Animales |
| CEPF | Critical Ecosystems Partnership Fund |
| 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) |
| PCTP | Philippine Cockatoo Translocation Project |
| PENRO | Provincial Environment and Natural Resources Office |
| PESP | Polillo Ecology Stewardship Project |
| 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 |

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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 km².

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.

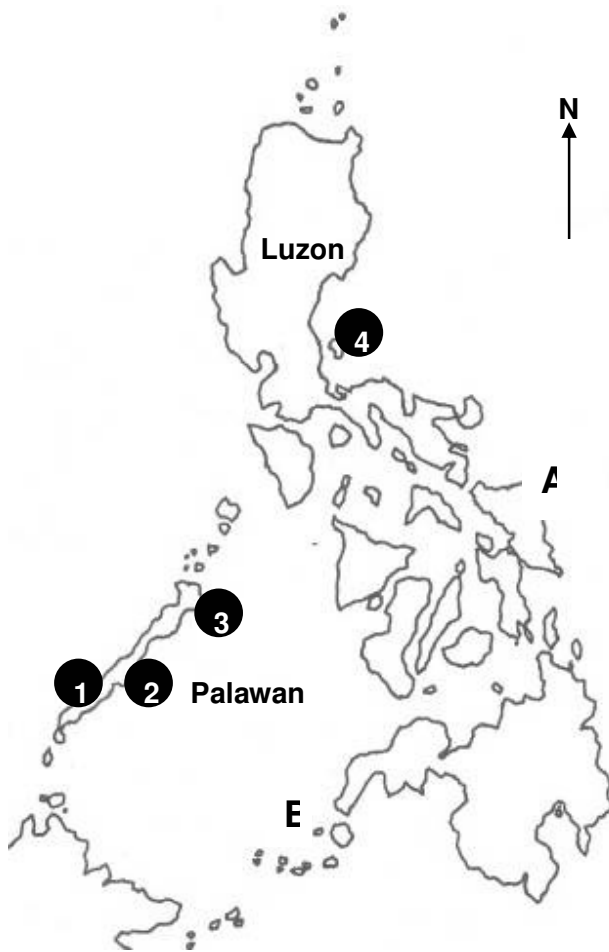


Fig. 1. Map of the Philippines indicating sites of the Philippine Cockatoo Conservation Program for comprehensive nest protection: 1. Culasian Managed Resource Protected Area (proposed), Rizal; 2. Rasa Island, Narra; 3. Omoi and Manambaling Cockatoo Reserves, Dumaran; 4. Patnanungan Island, Polillo group 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 Dumaran Island, Dumaran 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 Dumaran.

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 Dumaran.
- Continue experimental habitat restoration in Dumaran and monitoring of existing plots in Rasa and Dumaran.
- Conduct survey in Calamianes in cooperation with FFI.
- Continue faunal inventories in protected areas of Rizal and Dumaran.

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 km² area situated in the Sulu Sea, just offshore of the Municipality of Narra, Palawan, Philippines (Fig. 2). About 1.75 km² are covered with coastal forest, mangrove (5.60 km²), cultivated areas (predominantly coconut; 0.39 km²), 0.60 km² 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.

More so, not only Philippine cockatoos live on the island, but a variety of other species, with an unusual high percentage of globally threatened and near-threatened taxa (IUCN 2007), considering the small size of Rasa. Note worthy among the 104 recorded bird species are grey imperial pigeon *Ducula pickeringii* and Mantanani scops-owl *Otus mantananensis*. Marine life around Rasa is also diverse with at least three marine turtle species and dugong *Dugong dugon* recorded.

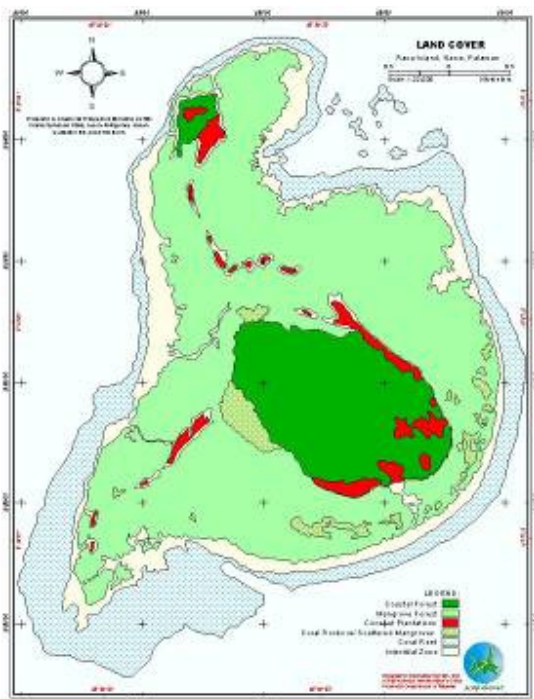


Fig. 2. Vegetation and land-use of Rasa Island, Palawan, Philippines.

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 is part of the Laurasian Shelf of northern Palawan (Heaney 1986). The bedrock consists mainly of ultrabasic metamorphites with interspersed limestone possibly of Tertiary origin. Most common soil types are silty clay loams and clay loams in the higher situation and beach sand and hydrosols in the coastal areas, based on estimates of sea levels (Gascoyne *et. al.* 1979). Dumaran Island is a typical land bridge island (Widmann, 1998) which was connected several times with mainland Palawan during the Pleistocene glaciations.

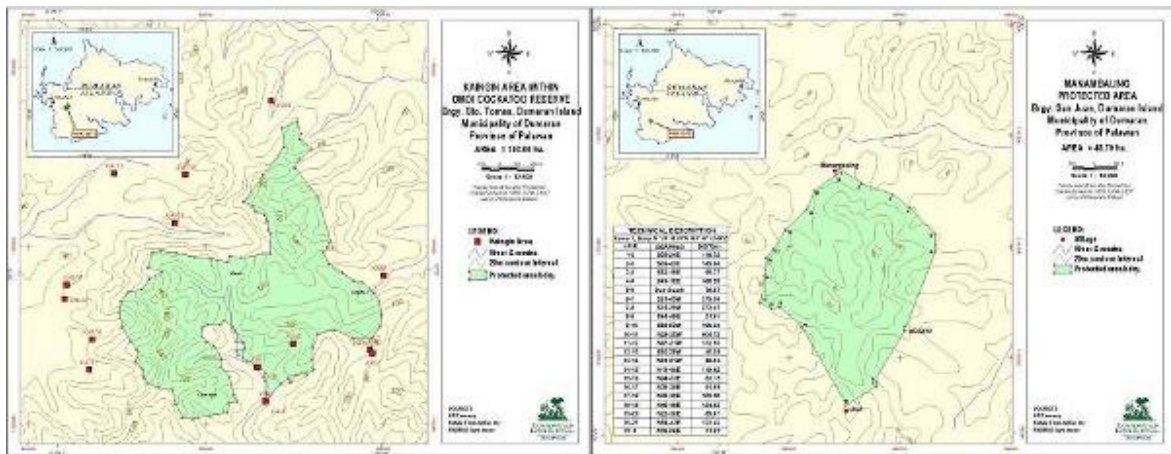


Fig. 3. Omoi Cockatoo Reserve (left) and Manambaling Cockatoo Reserve (right) cover the last forest patches on Dumaran Island.

All natural terrestrial ecosystems in Dumaran are tree-dominated. On Dumaran Island only few small and isolated forest patches remain, none of them larger than 103 ha. The most abundant formation is evergreen and semi-evergreen lowland forest with Ipil *Intsia bijuga*, Amugis *Koordersiodendron pinnatum* being emergent tree species of commercial value.

Species inventories from the municipality are still incomplete and systematic surveys just started recently. The only ornithological collection on Dumaran Island was conducted in 1921 (Dickinson *et al.* 1991). No historic accounts are available for other taxa. Ornithological surveys conducted by Katala Foundation so far yielded 108 species from the island. A prominent species of conservation concern is the Philippine cockatoo, which can be found with a possibly viable population in the mangroves and forest remnants of Dumaran Island, but apparently not anymore on the mainland. The last remaining forest patches are therefore of global conservation concern. This notion is supported by the recent records of other globally threatened species, particularly the Philippine forest turtle *Siebenrockiella leytensis*.

Other species of conservation concern are Palawan hornbill *Anthracoceros marchei*, Blue-headed racquet-tail *Prioniturus platenae* and Palawan pencil-tailed tree-mouse *Chiropodomys calamianensis*. A yet unidentified shrew species has been caught in one of the last forest patches.

Main forms of land use nowadays is upland and slash-and-burn agriculture ('kaingin'), which is still widespread on the island and affects more and more forested areas on steeper slopes on the mainland. Larger parts of the island are covered by grass-and shrub land and dense stands of bamboo as consequence of this practice. Due to lack of water, irrigation systems and level areas, lowland rice cultivation is very restricted. Permanent forms of cultivation are coconut and cashew plantations. Forest and grass fires are common, particularly during the dry season. Fire is not only used to clear areas for cultivation, but also to further growth of fresh grass for pastures. There is a severe shortage of timber and firewood and consequently illegal logging is widespread.

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.

Detailed geological maps for the area are unavailable. General information of the area is derived from the Geological map of the Philippines (Bureau of Mines 1981). Underlying rocks mainly consist of Oligocene, Miocene and Pliocene marine clastics with single limestone reefs of probably the same age. Coves, mangrove flats and estuaries are characterized by Pleistocene alluvial, fluvial and beach deposits, as well as raised coral reefs. Predominating soil types in the area are Sibul clay and Tagburos clay (Anon. s.a.). The former is mostly restricted to the coastal plains and derived from limestone. It is black and plastic, becoming compact when drying up. Tagburos clay is typical in rolling to hilly terrain. It is dark brown and rich in organic matter. The fine texture of this kind of soil prevents water percolation and results in extensive surface run-off during extended periods of precipitation.

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*.

Due to security reasons the floral composition of the mangrove area could not be assessed, but *Rhizophora* spp. and *Sonneratia* spp. seem to be common. Narrow tidal flats are exposed during low tide, particularly in the estuaries of the two larger rivers.

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.

To date, 133 bird species have been recorded within the proposed CMRPA. Among these are six globally threatened and six near-threatened species (IUCN 2006). Of outstanding conservation concern are particularly the larger tree cavity nesters, like Palawan hornbill *Anthracoceros marchei*, all three parrot species of Palawan, Philippine cockatoo *Cacatua haematuropygia*, Blue-naped parrot *Tanygnathus lucionensis* and Blue-headed racquet-tail *Prioniturus platenae*.

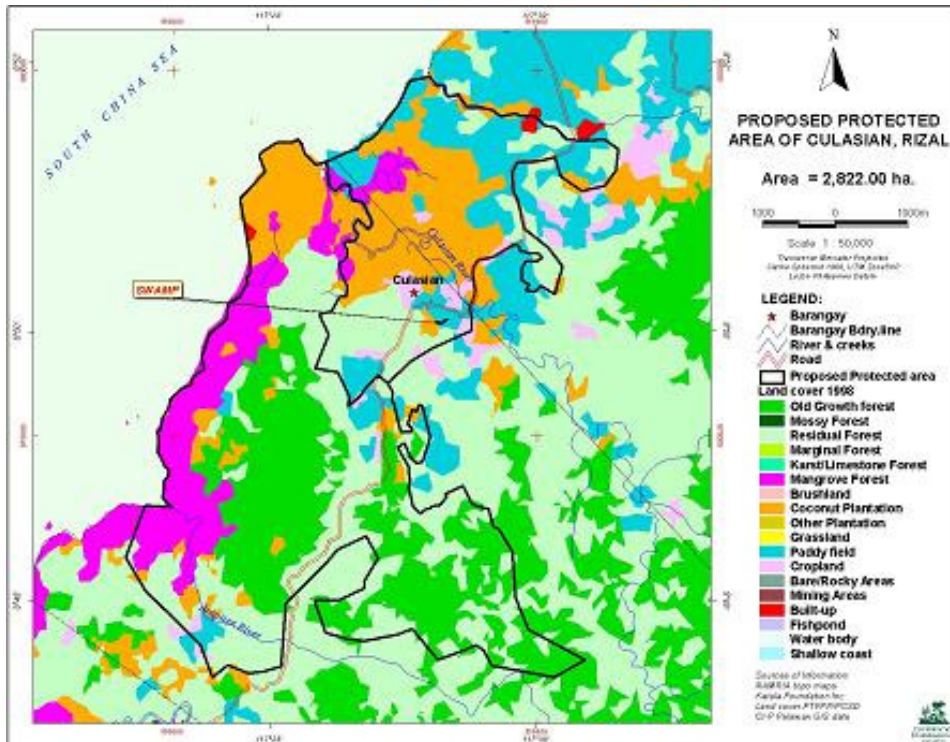


Fig. 4. Vegetation, land use and boundaries of Culasian Managed Resource Protected Area, Rizal, Palawan.

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.

Mangrove exists in protected coves in the north, with representatives of the genera *Bruguiera*, *Rhizophora*, *Sonneratia*, *Avicennia*, *Ceriops*, *Nypa fruticans*, *Heritiera littoralis*, among others.

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.

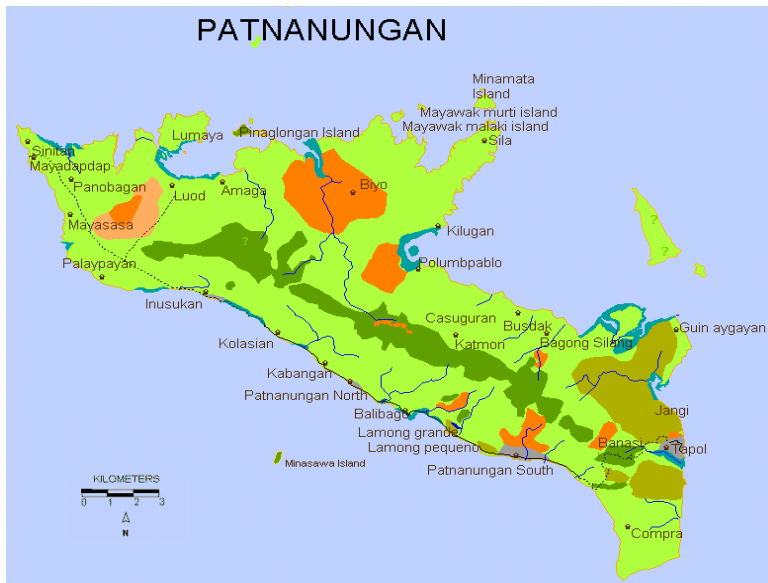


Fig. 5. Vegetation and land use of Patnanungan Island (Hampson et al., 2002). Light green: coconut, dark green: forest, blue: mangrove, orange: ricefield, light orange: cornfield, olive: grassland, grey: settlement

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. Wardens inspect and verify existing and potential nest trees starting end of September. During the breeding season, the nest trees are under permanent surveillance. Trees are climbed and nest holes controlled every ten days during that time. For safety reasons, dead or damaged trees are not climbed. 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 2006-06).

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. Radio telemetry was employed in 2006 to gather data on dispersal and mortality of fledglings from Narra.

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 Dumarán. 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

Thirty-two nest trees were intensively monitored this year of which six were newly-discovered. The latter were flashed with iron sheets in time to protect eggs and hatchlings from predation by monitor lizards.

In August as practiced, we conducted our assessment for this year's breeding efforts. Highlights of the meeting include as follows:

- Monitoring of nest trees with eggs must be carefully planned and regularly reviewed. Frequency is dependent on status e.g. possibility of being rotten, infertile. It was observed this season that some clutches have big gaps in egg laying. When they are hatched, monitoring is crucial as youngest nestling might be insufficiently fed by parent or might not be able to compete with older siblings. Our wardens have the ability to distinguish or at least can tell if eggs are fertile or not based on experience as poachers.
- Repairs on iron sheets installed on cockatoo nest trees will be completed by October. While flashing of nest trees other than cockatoos e.g. grey imperial pigeon, blue-headed racquet-tail, will likewise be done.
- Wardens must improvise other means to check the eggs and hatchlings inside deeper cavities. At least two hatchlings were injured upon checking because of the rattan stick used to reach the hatchlings.
- The option to remove the monitor lizards from Rasa requires a lot of legal procedures; hence, intense

monitoring rather should be continued.

- Two more artificial nest boxes will be installed before September ends. This gives hopefully ample time for birds to adjust with the new structure.
- Coordination and good relations with other tribal members and claimants on the island must be sustained to ensure smooth operations particularly during breeding season. This year no problems were encountered involving wardens and claimants or other stakeholders of Rasa.
- Status of nest trees, eggs, hatchlings for this year is discussed in Output 4.

Feather and blood sampling (under Gratuitous Permit No. 2008-002) was completed together with Dr. Justo from the Palawan Wildlife Rescue and Conservation Center (PWRCC). These samples have yet to be sent to a laboratory for Pbfd test and DNA sexing. Mayor Clarito Demaala Jr. and PASu Fernando Tactay joined in separate banding schedules of nestlings in May. The visit of Mayor Demaala provided the opportunity for wardens to share their experience with the mayor who was so impressed of their work. He was also assessing the potentials of the island as an eco-tourist destination.



Figure 6. Narra Mayor Clarito Demaala Jr. posed after banding the cockatoo hatchlings on Rasa in May. ©KFI

Wardens as well implemented information initiatives in barangays and amongst tribal community members. This is in response to the increasing counts and sightings of cockatoos foraging on the mainland Narra. Wardens played major involvement in the Katala Festivities in June. Please refer to Tab. 1.

Another cockatoo was rescued by wardens from a resident in Bgy. Princess Urduja, mainland Narra in June. After coordinating with PASu, said bird was confiscated. The bird had silver ring no. 0039-01 and had a mark allegedly from sling shot. The young boy who shot the bird and his family were brought to the barangay hall for interrogation. After securing transport permit from DENR, the rescued bird was turned over to PWRCC. Meanwhile, sanctions for the family of the boy will be deliberated by PAMB members during its regular meeting in September.

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 high counts of foraging cockatoos on mainland Narra prompted the PAMB to request the assistance of the Municipal Mayor. Memorandum Order No. 061 series of 2008 was signed requesting all barangay captains, officials and tanods (barangay guards) to help in monitoring the cockatoos in their respective areas. The memorandum further asks officials to reprimand residents who intend to inflict harm or injury to the birds sighted and report immediately to the PAMB or PCCP office.

The regular PAMB meeting for the 2nd quarter was done in 5th of May 2008. Highlights were:

- Adoption of the Manual of Operations;
- Inclusion of Bgy. Captain of Panacan II as member of PAMB;
- Memorandum for all barangays to help monitor cockatoos dispersed on mainland Narra;
- Adoption of the resolution to create RIWS Trust Fund at the municipality;
- Adoption of the resolution to impose charges and fees on Rasa Island Wildlife Sanctuary;
- Discussion on the municipal tourism code: provisions that impact Rasa Island e.g. planned tourist activities and infrastructures, environment fee imposed by municipality;
- Announcement of Mayor Demaala to fund the Katala Festival in June

organized by KFI amounting to 75,000 pesos;

- Announcement from Mayor Demaala on the increase of municipal appropriation for Rasa for 2009 from 120,000 pesos to 200,000 pesos;

Conservation Education

Intensive conservation campaigns have been on-going especially on mainland areas newly visited by cockatoos. A mobile crier (tricycle with sound system and announcer) went around barangays informing about the presence of cockatoos on populated areas in mainland Narra and laws governing its protection. This information initiative was supported by the Mayor through an order addressed to barangay officials and residents to monitor and protect from any harm the foraging cockatoos. We also conducted dialogue with the Association of Barangay Captains on this issue during their regular meeting in June. Radio guestings were done, 15-second conservation messages were aired through local radio, focus group discussions conducted, barangay visits and celebrations were integrated with conservation messages. At every opportunity possible anywhere in Narra, we engaged people in the information campaign. The SKM members who are mostly Tagbanua had also conducted their own information brigade among tribal members and in barangays south of Narra proper that are recently visited by cockatoos. While Narra Youth Organization for Environmental Conservation (NYOFEC), a group of young students from Narra organized by PCCP, spearheads its own information campaigns in schools and assists the office in CE activities.

Katala Festival

On 19-20 June 2008, the 2nd Katala Festival was celebrated with full support from the local government of Narra. It kicked off with the famous Malunggay

Planting along Panacan Road, a favorite foraging area of the Philippine cockatoo. This was highly participated by ca. 350 Narranians led by the Mayor himself, local officials and employees, schools, religious and civic organizations in Narra. More than 150 Malunggay cuttings and sorghum were planted successfully. A "Walk for a Cause" gathered as well ca. 200 residents with placards supporting our campaign against climate change. We also re-launched the campaign of former Mayor Lucena Demaala to use baskets and bayongs (washable bags) for marketing dry goods in particular. The theme, "Kick the CO₂ Habit" was in consonance with the global theme for June as environment month. This walk was seconded by a Memorandum from the Mayor enjoining everyone to participate.



Figure 7. Interactive games and lectures invite more participants during the 2nd Katala Festival in Narra. ©SSchoppe

The program officially launched KFI's initiative to involve barangays in Narra to engage in environmental projects. *"Narra support reducing its carbon emissions and we appreciate that Katala Foundation is bringing this up on this occasion. Likewise, we are grateful for the foundation's efforts to conserve Rasa Island and the cockatoo as it has benefited much the municipality of Narra",* says Mayor Clarito Demaala, Jr. is his message.

Three groups competed for the triathlon where members had to complete a run to the pier, and then paddle to the open sea back to the pier, bike to the planting site and plant five Malunggay cuttings before proceeding to the final spot for flag raising. Math and Science Club members from the PSU-Narra were facilitators for the competition. After which, the mural painting contest was conducted.

Katala Fun Day was super fun day full of colors and learning with games, face painting (a favorite of kids!) quiz bee and puppet show featuring student performers from the Palawan State University-Narra Campus and members of NYOFEC. Current issues in Narra like the use of sling shots were the central story of the puppet show which captivated the audience and was well

received. *"You can see the kids attentively listening to the puppets and even following through the story line",* Rommel, the NYOFEC coordinator exclaims. The mascot performance of Kataly was a "live wire" infecting all to dance and enjoy the show.

The celebrations concluded with an evening of song competitions and cultural performances before an estimated audience of 500. The Battle of the Band was contested by three local bands with impressive rendition of our Tahanan ng Katala and their original compositions about the Katala and the environment.

We conducted festival survey to random spectators and participants after the festivities in Narra (Fig. 8). Results suggested positive responses towards conduct of festivals e.g. it has reinforced information on the valuable interaction of humans and wildlife and motivating them to do something good for the environment and for conservation. Their interests would vary from learning more about laws, wildlife threats and man's interactions and conservation in general to planting of trees, reporting illegal activities and motivating others to do the same.

Q5: 5. It reminded me that:

| 5. It reminded me that: | | | | |
|---|--------|----------|---|-----|
| | Counts | Percents | 0 | 100 |
| Importance of cockatoos | 14 | 36.8% | | |
| Importance of nature and wildlife | 11 | 28.9% | | |
| Importance of wildlife and stop illegal logging especially around PA | 3 | 7.9% | | |
| Our responsibilities to nature, not to throw garbage, protect forest and wild... | 3 | 7.9% | | |
| No answer | 2 | 5.3% | | |
| Become aware of prohibited acts towards wildlife | 1 | 2.6% | | |
| Cockatoos | 1 | 2.6% | | |
| Our nature and their status | 1 | 2.6% | | |
| Our responsibilities to nature, not to throw garbage, protect forest and wildlife | 1 | 2.6% | | |
| We need to protect our environment especially the cockatoos | 1 | 2.6% | | |
| Totals | 38 | 100.0% | | |
| Mean | | -- | | |

Figure 8. Sample festival survey results which indicate the relevance and efficiency of festivities as strategy to convey conservation message to a wider audience.

The municipal government of Narra through its honorable Mayor provided full support and funding of 75,000 pesos for this year's Katala Festival celebrations. We are also grateful to the following donors, sponsors and supporters: Debbie and Erwin van den Beukel, Kgd. Murillo, Mr. Palermo, Kgd. Gimpaya, SHDiaz, DPWH, Narra and Golraz Enterprises.

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

Ecotourism

Rasa Island Wildlife Sanctuary (RIWS) was identified as one of the top 13 birding sites in the Philippines promoted by the Department of Tourism (DOT). The said agency is launching a book "Birdwatching in the Philippines on the 10th of September 2008. The validation team composed of representatives from DOT and the WildBird Club of the Philippines (WBC) visited Rasa in July and was impressed with the conservation work.



Figure 9. Validation team visited Rasa in July . ©SSchoppe

Meanwhile, tourists' guidelines, fees and charges had been approved by PAMB in the last regular session. A resolution on the creation of the Trust Fund for RIWS is now in process.

KFI is drafting technical position paper for endorsement to PAMB to ensure

sustainability of conservation efforts on Rasa Island in answer to the tourism plans of Narra and that of mining that impacts the island ecosystem.

Constraints and measures taken

- The injured bird rescued on 28th April finally succumbed to death probably due to infection despite efforts done and despite the positive reaction of the bird to treatment. The death was surprising as bird was exhibiting recovery manifested by good eating habits, weight and its reaction to humans. Please see necropsy report of Dr. Joanne Justo (Annex 1).
- The CENRO Office in Narra has written to PCCP its intent to collect mangrove propagules from Rasa for their plantation activities. We had expressed our concern on legalities especially that Rasa is a nationally declared protected area and that any collection must have a gratuitous permit.
- Intensive monitoring, synchronized mainland counts and intensified information campaigns are some indispensable measures to ensure safety of cockatoos dispersed on mainland Narra. This has to be pursued and perhaps a more comprehensive campaign be strategized in the future as well to evaluate impacts of conservation work on Rasa.

Output 2. Conservation of cockatoo population on Dumaran Island, Dumaran continued

Wardening scheme

Four active cockatoo nests were monitored from two cockatoo reserves in Dumaran; unfortunately only two successfully fledged this year. One nest had four eggs in the clutch; however all

were preyed reportedly by geckos. Please refer to Output 4.

The strong winds in May caused the fall of one Palawan hornbill nest with its hatchling and mother inside; however, due to impact both were found dead when the nest hole was opened. The other hornbill nest is occupied with termites thus no breeding was possible this year.

Other breeding records and nest trees monitored by wardens include four of Blue-naped parrot, two of Hill myna and six of Blue-headed racquet-tail.

Wardens continued monitoring and reported sightings either from roost areas or nesting sites, including the small islands of Kagsaleng and Talataen. However, no cockatoo sightings were confirmed during visits but secondary information was collected.

The trees planted in June during the Kalabukay Festivities are continuously monitored and more than 200 survived as to this period. The planting of Sorghum, a local favorite of Katala, along rice paddies and corn fields did not materialize yet within the period because of lack of Sorghum supplies.

Wardens started phenological studies after vegetation plots and mother trees were identified by visiting WPU Forester Celadiña.

Conservation education

Kalabukay Festival

The 4th Kalabukay Festival in Dumarán was successfully celebrated with the municipal foundation anniversary on 16-18 June 2008. Dr. Schoppe gave an inspiring message during the opening ceremonies.

The Katala Fun Day started with a tree planting activity joined in by ca. 50 participants from schools, the police, volunteers and residents of Bgy. Sto. Tomas and San Juan. A short program &

lecture was given by Dr. Schoppe before the planting of ca. 200 seedlings and few games were enjoyed after the planting. The main fun games and lectures with face painting and mascot appearance were done at the town proper. The last night was the most coveted search for Ms. Kalabukay where eight barangays competed for the title. In between breaks, there was the chorale singing contest as well participated by different barangays.

The Katala Conservation Club members were as well occupied with preparations for the Literary and Musical Show. We are grateful to the following donors: Silvertown, PhilamLife Insurance, Radio Veritas Asia and a generous individual.



Figure 10. Tree planting was successfully conducted along with interactive games and lectures during the 4th Kalabukay Festival in Dumarán. ©SSchoppe

Activities at the Katala Environmental Education Center (KEEC) had reached

ca. 300 students from May to August 2008.

Capacity building

The Local Protected Area Management Committee (LPAMC) convened on 7th August and highlights of the meeting were:

- Updates on results of Breeding Season 2008 and Kalabukay Festival;
- On-going cutting of round timber for house construction unabated as reported by Municipal Environment and Natural Resources Officer;
- Request PCSDS assistance to verify GPS readings on kaingin farms surrounding the two PAs. This was acted on by PCSDS on 21st August; however, only one day was spent for the purpose;
- Reorganization of the Sagip Katala Movement;
- Attendance to the Integrated Biofarming Training organized by Shell Foundation; and
- Turtle project of Endangered Species International. The body moved that proponent should submit proposal for committee review and evaluation and in the next meeting it shall be deliberated.

Alternative livelihood projects

Initial meetings with selected residents from barangays directly within the boundaries of the two protected areas were conducted. Some of the identified members along with few wardens were recruited to attend the one-week live-in training on Integrated Farming and Bio-System sponsored by Shell Foundation at Bgy. Teresita from 25-31 August 2008. This will hopefully initiate activities in relation to the reorganization of the SKM-Dumaran Chapter.

Constraints and measures taken

- Monitoring of wardens seems still not sufficient and satisfactory. In order to minimize data lapses in the future, a calendar of nest checking will be done for the next breeding season.
- A climber from Narra will be brought to Dumaran late this year and at the height of the breeding season next year to help in nest monitoring.
- B. Condeza has tendered its resignation as warden due to pressing family issues in coping with daily life. However, the Condeza couple continues to support the conservation project.
- Warden Tirso Sy, Bgy. Councilor of San Juan, proposes to author a barangay ordinance on the registration of airguns and to ban the use of sling shots. This is a precautionary measure to help in combating intentional persecution of cockatoos visiting populated areas though there were no reports on such cases for this period; rather only few complaints of cockatoos frequenting rice paddies particularly during harvest time.
- Reports were received that some residents in Sto. Tomas are now hunting turtles for consumption. This recent development started when this turtle-eating migrant settled in Sto. Tomas. Investigations are on-going.
- The case of Fidenci (the turtle researcher who allegedly did surveys without securing prior permits) was discussed before the Palawan Council for Sustainable Development Staff (PCSDS) on 12th June. Other attendees to the meeting were complainants from Municipality of Taytay, Western Philippines University, WWF-Palawan, and CI-Palawan. It is said that PCSDS has filed a case against Mr. Fidenci.

Meanwhile, his field researcher attended the LPAMC in June and was advised to send proposal to the committee for evaluation and deliberation in the next meeting.

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

Wardening scheme

A total of 116 out of 126 nest trees were occupied this breeding season with approximately 236 hatchlings of other species observed to have successfully fledged. In Tagbalugo area, the following fledglings were confirmed: 125 fledglings of Blue-naped parrot, 20 Hill myna and 2 hornbills. While in Balukanad area, 69 Blue-naped parrots, 18 Hill myna and 2 hornbills. Some trees could not be climbed and checked however behaviour of parent birds were keenly observed and noted.

Two cockatoo fledglings were confirmed in Ransang. One of the newly fledged still roosted inside the nest in June while the other including the parents stayed in an adjacent Manggis *Koompassia excelsa*. The other hatchlings from the nest inside the CMRPA were confirmed by wardens on duty to have fledged.



Figure 11. Banding and blood sampling of cockatoo hatchling from Ransang, Rizal. ©RCruz

With regards to illegal activities within and around vicinities of the CMRPA, a presentation on confiscations done and/or coordinated by KFI from January to July 2008 and actions taken is given in Tab. 2. Remarkably, some cases end up unresolved due to alleged influences and involvement of public officials. Threats of wardens and our Field Officer continue overwhelmingly that sometimes people have to be pulled out of site.

The latest illegal activity haunting Rizal is on timber trading. Threatened tree species such as Kamagong *Diospyros philippensis*, Ipil *Intsia bijuga*, Narra *Pterocarpus indicus* and Manggis *Koompassia excelsa* are the premium tree species that compose the trade business. Poached from the lowland dipterocarp forest of Mt. Mantalingahan Range, favorable market sizes are illegally transported to its final destination either to the Sandakan Open Port or Kudat in Malaysia. Some Rizal public officials are reportedly involved in this big illegal business. In several cases, we were contacted in order to settle cases filed; however, the KFI serves only as one of the witnesses for these cases.

We have engaged other agencies on this case particularly the Provincial DENR Office and Conservation International Palawan Program specifically because CMRPA is integrated into their proposed Mt. Mantalingahan Protected Landscape.

Capacity building for Local Protected Area Management Committee (LPAMC) for the management of CMRPA

Executive Order No. 007, series of 2008 was approved on 28th May 2008 by the Municipal Mayor. This order creates the Environmental Protection and Management Council to help abate illegal activities on ground.

On 10th June, regular LPAMC meeting was conducted. Highlights were:

- Presentation of budget for the CMRPA boundary demarcation and farm survey by KFI. Team agreed to help defray expenses for the said activity;
- Approval of Executive Order 007 creating the Environmental Protection and Management Council;
- Report on illegal activities within the CMRPA;
- Presentation of the results of the CMRPA faunal survey conducted by KFI; and
- Report on the Rizal Foundation Week and Kalikasan Festival held in April.

was attended by KFI and PNP as witnesses.

Constraints and measures taken

- The success of cockatoo breeding this year was complemented by hiring two additional local guards near nest trees apart from regular warden monitoring the area.
- The threats received by our Field Officer and wardens had been alarming. We have registered in a blotter at PNP-Rizal and Narra all threats received by phone or verbally. These threats hampered field work especially nest verification and characterization within the period.
- We have also shared all information to relevant offices e.g. PENRO and Conservation International Palawan. In the next LPAMC meeting, CI will co-sponsor the meeting in order to discuss in detail the inclusion of the CMRPA to the Mt. Mantalingahan Landscape.
- As capacity building measure, we continue providing logistical support to PNP Rizal to pursue filing of both criminal and administrative cases against perpetrators.
- The on-going Jakarya case on illegal wildlife trade had hearing in July and

Table 1. Conservation education campaigns, May - August 2008, Philippine Cockatoo Conservation Program

| DATE/TIME | ACTIVITIES CONDUCTED | LOCATION | RESULTS/REMARKS | PROBLEMS ENCOUNTERED |
|-----------|---|--|---|----------------------|
| 05.07.08 | Poster making and essay writing contest in relation to literacy month celebration | DNHS, Dumarán | <ul style="list-style-type: none"> • Many students participated. • Prizes were awarded to the winners | None |
| 05.08.08 | Katala Fun Day during the celebration of Antipuluan 49th Founding Anniversary | Barangay Antipuluan, Narra | <ul style="list-style-type: none"> • Conducted mascot show, interactive lecture and games participated by youth and adults of Barangay Antipuluan. • About 40 youth and 30 adult were present. • The residents appreciated the activity. | None. |
| 05.12.08 | Radio guesting | Radyo Natin, Narra | <ul style="list-style-type: none"> • Discussed the Philippine Cockatoo Conservation Program and encouraging the people in assisting cockatoo mainland monitoring. | None. |
| 05.13.08 | Lecture to elementary pupils | KEEC, Dumarán | <ul style="list-style-type: none"> • 9 Elementary students were present • Discussed the Manambaling and Omoi Protected Areas | None. |
| 05.17.08 | Focus group discussion | So. Casipulo, Barangay San Juan, Dumarán | <ul style="list-style-type: none"> • Discussed the effect of conversion of forest land into agricultural land. • At the end of discussion, the 7 audiences realized that nature is being sacrificed for development and profit | None. |
| 05.17.08 | Lecture to Barangay Council | Barangay Taritien, Narra | <ul style="list-style-type: none"> • Conducted lecture to 25 people including some residents of Taritien. • Discussed facts about RIWS and PCCP. | None |
| 05.21.08 | Lecture to residents and barangay leaders | Barangay Panacan I, Narra | <ul style="list-style-type: none"> • Discussed facts and legislations for RIWS. • 14 individuals were present. | None |

| | | | | |
|-------------|---|---|--|--|
| 05.22.08 | Lecture to residents and barangay leaders | Barangay Antipuluan, Narra | <ul style="list-style-type: none"> Discussed facts and legislations for RIWS. | None |
| 05.28-29.08 | Focus group discussion | Pandanán and Malinsuno Islands, Balabac | <ul style="list-style-type: none"> Shared to residents of the island the importance of biodiversity and conservation of remaining endangered species. | One (1) cockatoo individual was retrieved in one resident of Pandanan. It was properly coordinated and turned over to authorities. |
| 05.29.08 | Short lecture and film showing | Purok Pag-asa, Barangay Antipuluan, Narra | <ul style="list-style-type: none"> "Pitong Paraiso" and Endangered Tales were shown. More or less 40 children with age range from 5-12 yrs old keenly watched the film. A short discussion was conducted after. | None. |
| 06.02.08 | Focus group discussion | Barangay Poblacion, Narra | <ul style="list-style-type: none"> 14 Barangay Leaders are present. PCCP and RIWS legal protection were discussed. | None |
| 06.03.08 | Focus group discussion | Barangay Sto. Tomas, Dumarán | <ul style="list-style-type: none"> Discussed effect of Kaingin and facts on Protected Area 16 people were gathered Distributed information materials | Many questions were raised regarding use of mangroves, why it is prohibited to cut and use mangroves. |
| 06.05.08 | Focus group discussion | Bgy. Amaga officials and teachers, Patnanungan, Polillo | <ul style="list-style-type: none"> Conducted perception survey among targets. Results indicated low knowledge and awareness on conservation in general. | None |
| 06.06.08 | Presentation of PCCP and RIWS | ABC Meeting, Municipal Hall, Narra | <ul style="list-style-type: none"> Discussed PCCP and RIWS legal protection. Invited and informed all barangay officials to support monitoring of cockatoos in their area. | None |
| 06.09.08 | Focus group discussion | Purok Damayan, Barangay Panacan II, Narra | <ul style="list-style-type: none"> 25 people were present Discussed legal protection of RIWS and encourage people for voluntary cockatoo monitoring in their area. | None |
| 06.09.08 | Orientation to RIWS visitors | RIWS, Narra | <ul style="list-style-type: none"> Discussed conservation works and PCCP. The visitors appreciated the information shared. | None |

| | | | | |
|-------------|---|--|---|-------|
| 06.14.08 | Lecture to children | Purok Pagkakaisa, Barangay Malinao, Narra | <ul style="list-style-type: none"> 30 children are present wherein interactive lecture and games was conducted. | None. |
| 06.14-18.08 | 5th KALABUKAY FESTIVAL | Dumaran Island, Dumaran | <ul style="list-style-type: none"> Tree planting activity, face painting, lecture, games, and best in costume parade contest, mascot show, and environmental chorale singing contest, film showing and Search for BB. Kalabukay 2008 was conducted. People participated came from different barangays of Dumaran. | None. |
| 06.15.08 | Film showing and environmental games | Purok Pagkakaisa, Panacan I, Narra | <ul style="list-style-type: none"> 41 children with their parents participated in the activity. The children enjoyed and appreciated the activity. | None. |
| 06.16.08 | Focus group discussion | Barangay Elvita, Narra | <ul style="list-style-type: none"> 15 people attended Discussion on RIWS legal protection. | None. |
| 06.19-21.08 | 2nd KATALA FESTIVAL AND ENVIRONMENT MONTH CELEBRATION | Narra | <ul style="list-style-type: none"> Malunggay planting, Walk for a Cause, face painting, mascot and puppet show, environmental lecture and games, film showing, triathlon and green concert was held. Narranians participated and appreciated the activity. | None |
| 06.24.08 | Katala Fun day and Lecture | Purok Bliss, Panacan II | <ul style="list-style-type: none"> Interactive games and lecture was conducted during the fiesta celebration of the Purok. 25 children participated in the activity. | None |
| 06.26.08 | Lecture and discussion | So. Salvacion, Barangay Poblacion, Dumaran | <ul style="list-style-type: none"> Gathered 20 people and discussed about PCCP, Philippine cockatoo and its status. Distributed pamphlets and brochures. | None |
| 07.10.08 | Lecture | PSU, Dumaran | <ul style="list-style-type: none"> College students are present and discussed about KFI projects and programs. Encouraged them to join in the activities and visit the KEEC library. | None |
| 07.10.08 | Focus group discussion | Barangay Teresa, Narra | <ul style="list-style-type: none"> Discussed about RIWS and the Philippine cockatoo. Facilitated by wardens who shared their experiences and testified to the impact of conservation project in their lives and culture. | None. |

| | | | | |
|----------|-------------------------------|---|--|-------------------------------------|
| 07.12.08 | Focus group discussion | So. Debdeb, Barangay Bohol, Dumarán | <ul style="list-style-type: none"> 17 people were gathered and discussed about the PA and KFI programs. | None |
| 07.12.08 | Radio guesting | DYPR, PPC | <ul style="list-style-type: none"> Discussed about wildlife trade, threats to Katala and other cavity-nesting animals with reference to Rizal | None |
| 07.13.08 | Lecture and FGD | Bgy. Anibawan, Burdeos, Polillo | <ul style="list-style-type: none"> Discussed on concepts on ecology and conservation in general | None |
| 07.14.08 | Lecture and FGD | Bgy. Carlagan, Burdeos, Polillo | <ul style="list-style-type: none"> Discussed on concepts on ecology and conservation in general | None |
| 07.17.08 | School visit | Bgy. Amaga, Patnanungan, Polillo | <ul style="list-style-type: none"> Discussed on concepts on ecology and conservation in general Reached about 60 grade schoolers | None |
| 07.19.08 | Focus group discussion | Barangay Princess Urduja, Narra | <ul style="list-style-type: none"> Discussed about RIWS and the Philippine cockatoo. Facilitated by wardens who shared their experiences and testified to the impact of conservation project in their lives and culture. Barangay officials are also present. | None |
| 07.19.08 | Focus group discussion | So. San Rafael, Barangay Princess Urduja, Narra | <ul style="list-style-type: none"> Discussed about RIWS and the Philippine cockatoo. Facilitated by wardens who shared their experiences and testified to the impact of conservation project in their lives and culture. | None |
| 07.21.08 | Focus group discussion | Barangay Batang-batang, Narra | <ul style="list-style-type: none"> Discussed the role of PCCP in conserving the cockatoos in Rasa Island and the role played by stakeholders. | None |
| 07.23.08 | TV Feature: Born to be Wild | GMA National TV | <ul style="list-style-type: none"> Featured PCCP efforts against illegal wildlife trade | Copy of documentary hard to procure |
| 07.24.08 | Presentation of PCCP and RIWS | RVM Gym, Narra | <ul style="list-style-type: none"> Presented and informed the audience composed of law enforces about the project, legal protection, and collaboration made between LGU and other offices who are member of PAMB. | None |

| | | | | |
|----------|------------------------------|---|---|-------------------------------------|
| 07.28.08 | Focus discussion group | Barangay Tersa, Narra | <ul style="list-style-type: none"> Discussed about RIWS and the Philippine cockatoo. Facilitated by wardens who shared their experiences and testified to the impact of conservation project in their lives and culture. | None |
| 07.28.08 | Focus discussion group | Barangay Poblacion & Sto. Tomas, Dumarán | <ul style="list-style-type: none"> Discussion on the possible re-organization of Sagip Katala Movement. Participated by farmers. | None |
| 07.28.08 | Focus discussion group | Barangay San Isidro, Narra | <ul style="list-style-type: none"> Discussed the role of PCCP in conserving the cockatoos in Rasa Island and the role played by stakeholders. | None |
| 07.30.08 | TV Feature: Born to be Wild | GMA National TV | <ul style="list-style-type: none"> Featured the Freshwater Turtle Conservation Programme of KFI | Copy of documentary hard to procure |
| 08.08.08 | Focus discussion group | So. Manambaling, Barangay San Juan, Dumarán | <ul style="list-style-type: none"> Discussion on SKM Dumarán Chapter re-organization. Also presented status and role of PCCP in conserving the cockatoos. Encourage the farmers to join in the IFBS training sponsored by Filipinas Shell Foundation to gain skill and knowledge that can be a tool in strengthening the organization of SDM-DC. | None |
| 08.12.08 | Film showing | Narra Bible Baptist School, Narra | <ul style="list-style-type: none"> 78 students from different grade are present. Showed the Endangered tales documentary Discussion on the cockatoo conservation project and wildlife laws. | None |
| 08.14.08 | Orientation to RIWS visitors | RIWS, Narra | <ul style="list-style-type: none"> Discussed conservation works and PCCP. The visitors appreciated the information shared. | None |
| 08.18.08 | Lecture and discussion | KEEC, Dumarán | <ul style="list-style-type: none"> 18 college students were given lecture on biodiversity and the Philippine Cockatoo Conservation Program Encourage them to visit KEEC and use the library often The students signify their willingness to volunteer and joining in different environmental activities | None |

| | | | | |
|----------|------------------------|--|--|------|
| 08.20.08 | Interactive lecture | Princess Urduja Elementary School, Narra | <ul style="list-style-type: none"> • 120 elementary pupils participated • Discussed about the cockatoos in RIWS and messages on Share a place to live and lecture on freshwater turtles. | None |
| 08.20.08 | Interactive lecture | Princess Urduja National School | <ul style="list-style-type: none"> • 70 3rd & 4th year high school students participated • Discussed about the cockatoos in RIWS and messages on Share a place to live and lecture on freshwater turtles. | None |
| 08.20.08 | Focus group discussion | So. Batas, Barangay Bohol, Dumarán | <ul style="list-style-type: none"> • Discussed the effect of conversion of forest land into agricultural land. The participants understood that when they cut trees, soil erosion is the mere possible effect in which the topsoil needed by plants is being washed away. • 8 people were gathered • Distributed IEC materials. | None |
| 08.23.08 | Radio guesting | DYPR, PPC | <ul style="list-style-type: none"> • Discussed on the Pandanan recent survey | None |
| 08.26.08 | Radio guesting | DYSP, PPC | <ul style="list-style-type: none"> • Discussed on status of Philippine cockatoo and updates on the PCCP | None |

Table 2. Log on illegally traded wildlife from southern Palawan, Philippines from January-July 2008

| MONTH 2008 | WILDLIFE CONFISCATED | NUMBERS | TEAM | ACTION TAKEN | | | REMARKS |
|---------------|--|---|-----------------|---------------|---------|----------------|---|
| | | | | CASE FILED | PENDING | UN RESOLVED | |
| February | Ipil timbers from Culasian, Rizal | 48 slabs | CAFGU, Culasian | | | X | Reportedly with consent from public official and meant for transport to Puerto; Confiscated timber turned over to Bgy. Captain. |
| March | Hill myna from Quezon | 60 individuals | PNP-Quezon | | | | Two persons were caught but released by PNP COP Quezon including the birds. Case was filed against the actions taken by PNP COP. |
| | Iron wood from Culasian, Rizal | 77 (3x3x10) | CAFGU, Culasian | | | | Abandoned, coordinated MENRO and they passed the information to CAFGU; Confiscated timber turned over to Bgy. Captain. |
| May | Blue-naped parrot (BNP) / Hill myna (HM) from Rizal | 10 ind. of Hill myna, 7 ind. of Blue-naped | PNP Rizal | | | X | Abandoned in a stock-house, some of the birds died after few days. 7 birds remained and turned-over to PWRCC |
| | Ipil from Ransang, Rizal | 24 (10x10x20) | PNP Rizal | | | X | Released back to claimant by PNP after hauling; Allegedly meant for Malaysian Timber Trade; It was dumped in the barangay plaza. No custody receipt was signed. |
| | BNP, HM and Bearcat from So. Panibugon, Malatgao, Quezon | 158 ind. of BNP, 31 HM, 1 Bearcat | CIDG | | | X | It was turned over allegedly to City of Puerto and was released at PPSRNP |
| June | Ipil from Ransang, Rizal and 1 chainsaw | 24 (10x10x15) | PNP Rizal, KFI | X | | | 3 chainsaw operators and 1 hauler were caught but one of them managed to escape, timber meant for Malaysian Timber Trade. All freshly cut |
| | Ipil from Panalingaan, Rizal, 1 chainsaw | 1 Ipil tree (not measured) | PNP Rizal | X | | | 1 chainsaw operator caught in the act; Case filed |
| | Ipil from Latud, Rizal, 1 chainsaw | unknown | PNP Rizal | | X | | Caught in the act 1 chainsaw operator. |
| July | Ipil and 1 chainsaw in CMRPA, Culasian, Rizal | 1 Ipil tree est. 2.5m dia., 60m canopy height | PNP Rizal, KFI | X | | | Caught in the act 3 perpetrators and confiscated 1 chainsaw. Case filed. |
| | Kamagong and Ipil from Ransang, Rizal | 16 (4x10x12) | PNP Rizal, KFI | | X | | Verified 16 pieces slabs meant for Malaysia. It was submerged on the river in Upper Balen-balen, Ransang. |

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

Breeding success and breeding population development

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. 24 eggs were either missing or taken out because of infertility, some were rotten and cracked, predated or cannot be traced due to deepened nest chambers. Six hatchlings were lost to predators (probably white-bellied sea eagle and owl).

All 49 fledglings were banded. Banding data gathered in Annex 2 includes all project sites.

Numbers of breeding pairs, eggs, and hatchlings show an upward trend since 2000, with 2008 having the highest number with 32 pairs, 78 eggs, 56 hatchlings and 49 fledglings, respectively (Fig. 12).

Average number of eggs, hatchlings and fledglings per breeding pair remained relatively stable. Average number of eggs peaked with slightly over three eggs per pair in 2002. Out of 16 pairs, three produced clutches with four eggs, a phenomenon which so far is not recorded from captive Philippine cockatoos. After 2002 four eggs in one clutch only we observed in one pair (out of 24) in the year 2006. In the breeding season following the catastrophic outcome of the season in 2005, again a slight increase in clutch size was observed (Fig. 13).

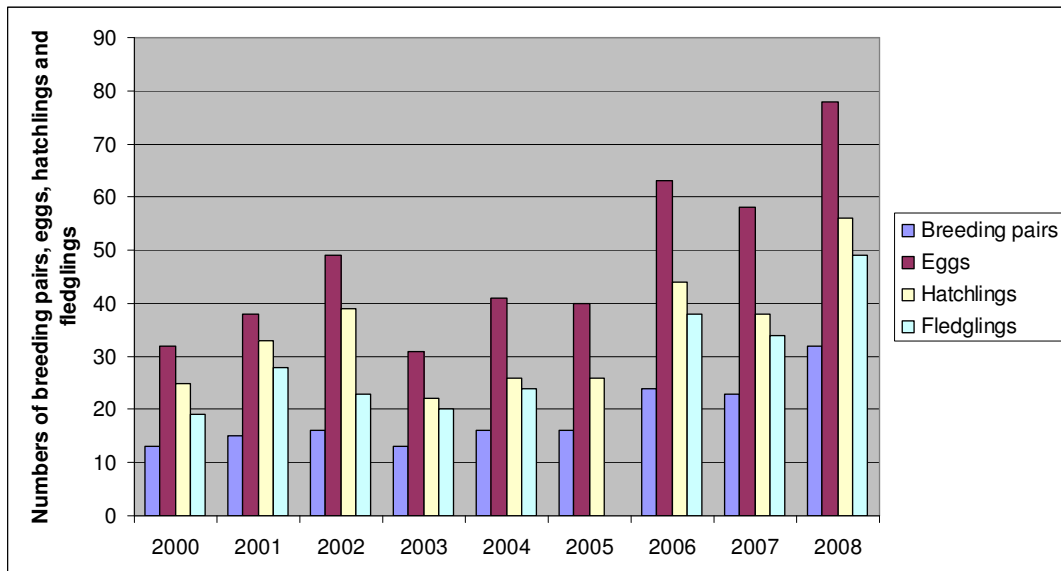


Figure 12. Numbers of breeding pairs, eggs, hatchlings and fledglings in the breeding seasons from 2000 to 2008 on Rasa Island. Note that due to extreme drought no birds fledged in 2005.

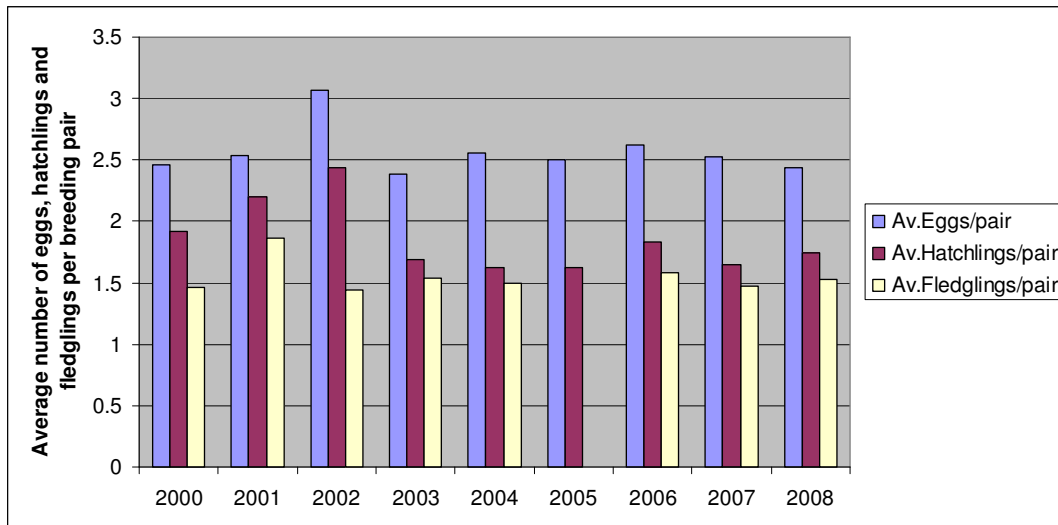


Figure 13. Average number of eggs, hatchlings and fledglings in the breeding seasons from 2000 to 2008 on Rasa Island.

We explored the data set of breeding results (pairs, eggs, hatchlings, fledglings) and precipitation for the breeding seasons from 2000 to 2008. We tested correlation of average clutch size, average number of hatchlings and fledglings per breeding pair, using Spearman's Rank Correlation Coefficient with monthly and tri-monthly precipitation (e.g. January to March, February to May, etc.), as well as for precipitation during the complete breeding season (January to June).

In contrast to the results presented last year, with the addition of the data sets from 2007 and 2008 it appears that the number of fledglings per pairs remains relatively stable over a wide range of precipitation (ca. 300mm to 800mm from January to June). A drop of rainfall below 300mm, particularly in the first half of the

breeding season resulted in the total breeding failure, like in the year 2005.

We assume that flowering and fruiting of most trees, including the ones providing food for cockatoos is correlated to precipitation (but data sets for phenology are still too small to test this statistically). In years with 'normal', rainfall there is a distinct peak of fruiting within the breeding season (years 2004, 2006-2008 in Fig. 14), often followed by a smaller peak later in the year. The abundance of flowers and particularly fruits during the breeding season is certainly of great importance for the overall breeding success. This peak was notably absent in the first half of the year 2005 and was likely a major cause for the total breeding failure on Rasa Island.

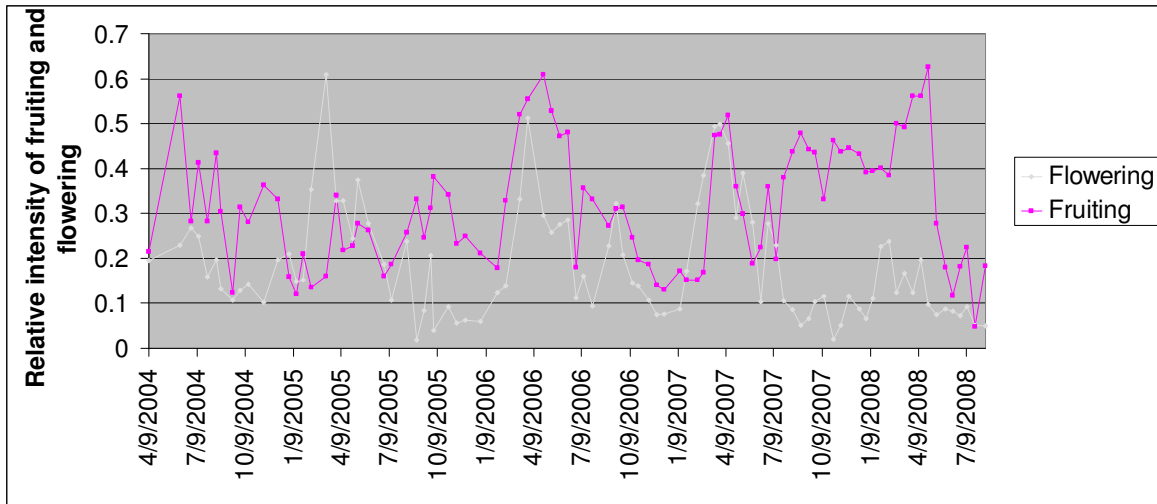


Figure 14. Relative flowering and fruiting intensity of woody plants on Rasa Island (2004-2008).

In total we have 56 identified nest trees on Rasa including the six new nests discovered (two *Garuga floribunda*, three *Sonneratia alba*, and one *Sterculia* sp. or Gindaon as known locally). Flashing in six old nest trees need to be repaired or replaced. New nest cavities were observed in few identified nest trees with nest holes located in branches which were already cut or have fallen. This is monitored for possible occupation in the next breeding season. While in some nest trees additional flashing will be installed and neighboring trees as well will be flashed to ensure that monitor lizards do not reach nest holes. Plain sheets that covered nest holes that were prone to flooding will be replaced with

wood covers. Wardens thought that the previously used iron sheets may have negatively affected breeding attempts. Drainage holes will be drilled to other nests prone to flooding.

No incidents of starvation were observed this breeding season.

At the traditional roost site, the counts are impressive reaching 205 individuals in June (Fig. 15). Since May, the counts had been around 125 to 200 individuals with more individuals hiding in canopies. In June we did almost daily counts and this reflected high numbers reaching up to the highest roost count ever in the wild!

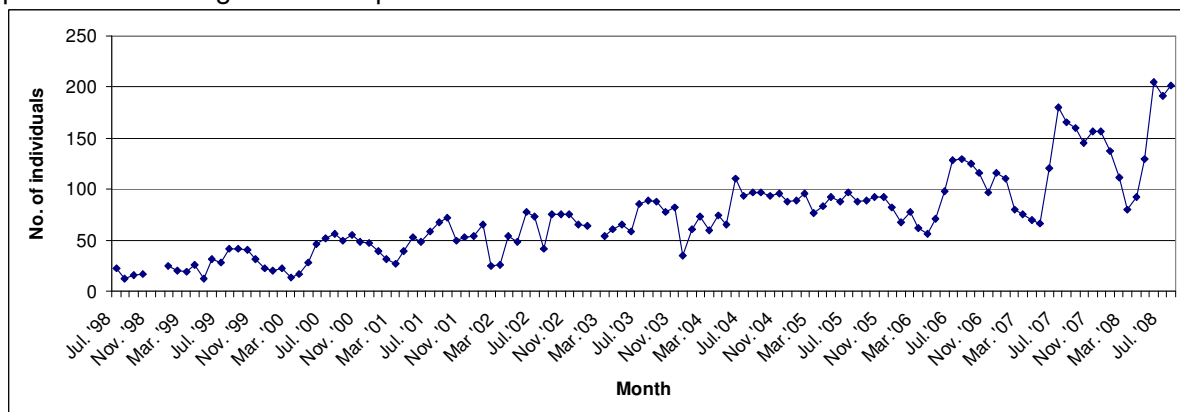


Figure 15. Monthly roost counts of Philippine cockatoos at the traditional roost site, Rasa Island, Palawan.

Meanwhile on mainland Narra, highest observation varied in two stations; in Marcelo area where numbers reached 80 individuals in May while in Borbon area numbers reached to 83 birds. Noteworthy are the new sites visited by cockatoos on the mainland (Fig. 16). Sites are mainly characterized by presence of Malunggay *Moringa oleifera*, a favorite local food source. This is the first time to observe the birds reaching south of town proper. Most of the new areas visited are vastly populated e.g.

town proper of Narra in particular within the vicinities of the municipal hall and the PCCP field office. They are as well observed to have crossed the highway in Narra and visited the KIEBC area where our captive cockatoos are. There was short interaction among the birds as observed by caretakers. Birds flew as far as the lowland forest at the foot of Victoria Range.

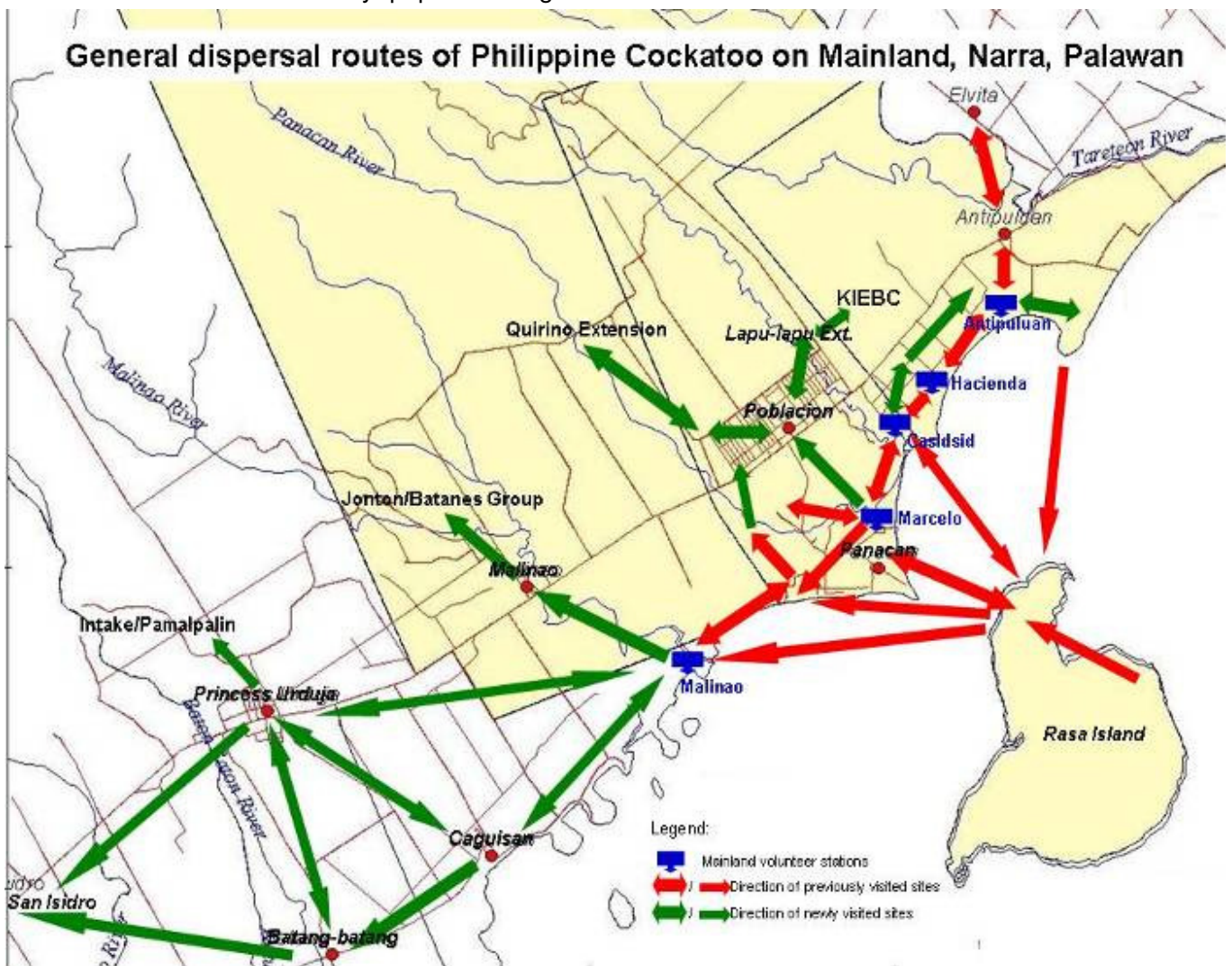


Figure 16. General flight movements of Philippine cockatoos from Rasa Island to mainland Narra, Palawan, Philippines.

Sporadic synchronized counts at mainland stations were done from May to August. This helps us check counts done by mainland volunteers.

Arrival and exit counts as well were done from May to August at Borbon station (Fig. 17). This is the shortest route from Rasa Island to mainland Narra which is regularly taken by the cockatoos. Others directly go to coastal areas in Bgy. Antipuluan. Flight movements of the birds indicate dispersal to interior Narra. At one observation, more than 60 individuals were sighted in these areas in

early June during the synchronized counts.

In Alisto station, all arrivals were observed directly going to an area with flowering Dapdap *Erythrina variegata*.

The influx of birds on populated areas could potentially threaten birds. Hence, intensive information campaigns were conducted and laws were enforced strictly. While the numbers of cockatoos foraging on mainland Narra have increased, Narranians are continuously planting Malunggay in foraging areas.

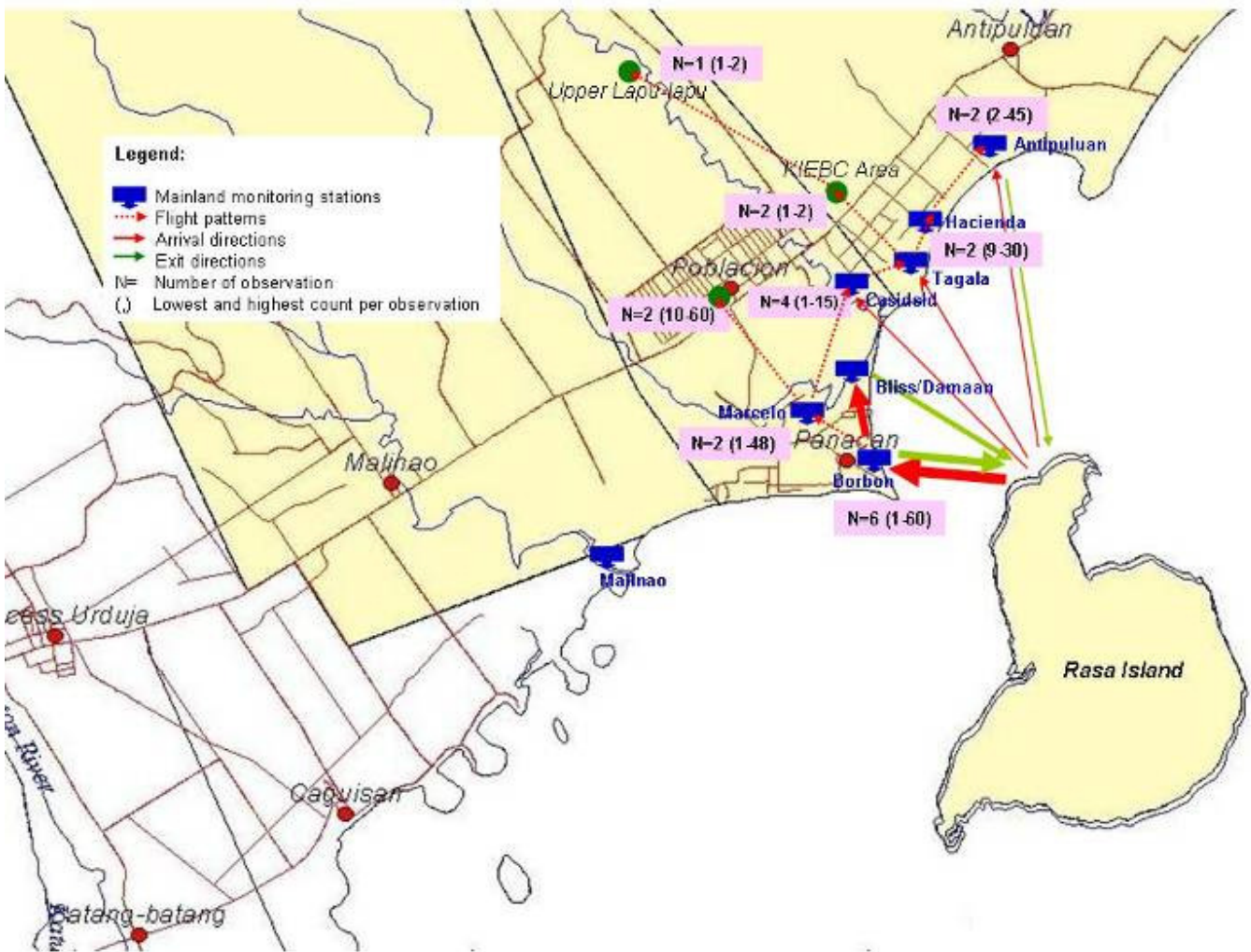


Figure 17. Movements of cockatoos from and to Rasa Island and coastal Narra Municipality from May to August 2008. Red solid arrows indicate arrivals; Blue arrows exit; N refers to number of observations with range from lowest to highest counts in respective stations.

Dumaran Island

We had a total of 10 eggs; however only two eggs successfully hatched, banded and fledged (Annex 2). Seven eggs were preyed and one was infertile. One clutch had four eggs but unfortunately failed due to predation by probably a gecko. The latter was frequently observed on the nest tree. A week after, another two eggs were preyed by a gecko in another nest hole.

There were nine identified nest trees but two fell already. Only four were occupied this year. One nest tree is now being occupied by two other species: Hill myna and an owl (probably *Ninox scutulata*) while another nest tree is shared with a Blue-naped parrot.

Daily counts at the traditional roost site in Lagan had reached 20 individuals in July

and August this year (Fig.18). A survey on a small island, Kagsaleg suggested that cockatoos must have frequented the island within the period because of the fruiting Narra and Pagatpat *Sonneratia alba*. During the overnight stay on the island in July, no cockatoos though were observed feeding; however, three scops owl were observed. Another island was visited, Talalaen, where seven individuals were observed feeding on *Sonneratia alba* at 4:40 in the afternoon. The island is surrounded by this mangrove species and might be potential for roosting and nesting.

The search for possible nest and roost sites was continued in forest patches and mangrove areas but this year yielded no further confirmed cockatoo nest and roosting site.

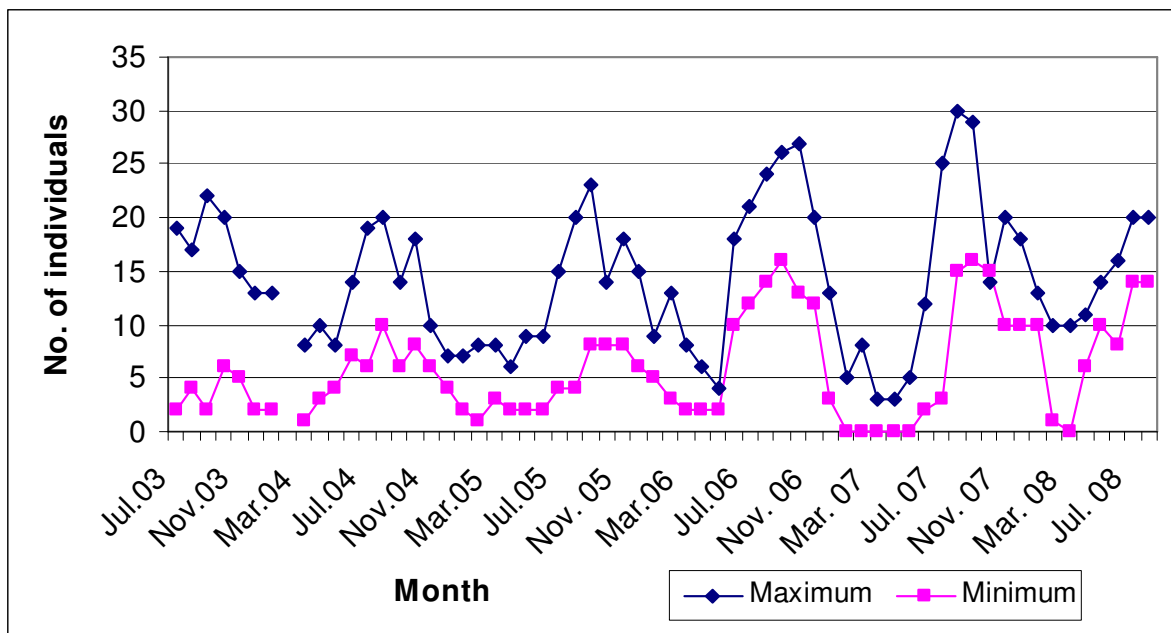


Figure 18. Monthly maximum and minimum numbers of Philippine cockatoos roosting at the traditional roost site in So. Lagan, Bgy. San Juan, Dumaran, Palawan.

CMRPA, Rizal

This year we have confirmed four hatchlings in all from Rizal; for the first time since project implementation; two from inside the CMRPA and two from Ransang. The Ransang nest tree

Manggis *Koompassia excelsa* stands solitary inside a kaingin farm, approximately 60-65m high, with DBH of 2.3m. The nest hole is about 45m high and it can be reached by accessing adjacent tree and transferring with the use of a local vine as rope.

The nest from inside the CMRPA could not be climbed so monitoring involves observing fledglings leave the nest with adults.

Other wildlife

On Rasa, two nests of Blue-headed racquet-tails were discovered. Colonies of Rufous night-heron were monitored shortly after the cockatoo season.

While two and three new nest trees of Blue-naped parrot and Blue-headed racquet-tail were discovered this year in Dumarán. There were eight eggs in total of Blue-naped but only five successfully fledged; one egg and two hatchlings were probably predated. While 13 nestlings of Blue-headed racquet-tails were monitored this year though only two could be confirmed to have successfully fledged. Four fledglings of Hill myna were monitored. The hornbill hatchling died after the nest tree fell caused by strong winds in May. Out of three recorded, only one nest tree of hornbill exists. The other one is already full of termites.

While in the CMRPA in Rizal, confirmed were 125 fledglings of Blue-naped parrot, 20 Hill myna and 2 hornbills from Tagbalugo area while in Balukanad area, 69 Blue-naped parrots, 18 Hill myna and 2 hornbills.

Phenological Studies on Rasa and Dumarán

Phenological studies on food and nest providing trees in Dumarán has just started with a total of nine plots covering the two cockatoo reserves.

On Rasa, mangrove phenology also commenced within the period.

PCCP in Patnanungan, Polillo

In May this year the Kalangays (cockatoos) have started to go down to more inhabited areas like Sitio Cabangán where a pair was seen flying over and perching on a Balinad (*Sterculia philippinensis*) near our warden, Edgar Abañó's house. The Kalangay was seen

twice by Edgar's wife and his neighbor from 7 – 8 AM in May 30 and June 2. The Kalangays have not been seen in a populated area for more than 30 years, according to Edgar Abañó (KFI volunteer warden). The highest number seen at a time is four individuals last 3rd April at Bundok Apitong, Brgy. Patnanungan Norte.

Two trees were confirmed by Brgy. Captain Antonio Ulleras to have been possibly occupied by Kalangays and Kagits during the month of May 2008. He accompanied the monitoring group to two coconut groves in Sitio Bacong, Brgy. Amaga.

The first tree visited last June 5 was a dead Red Lauaan (*Shorea negrosensis*) located in an area they called SONA. The tree is 9.4m in height with a circumference of 518cm. The height of the nest hole is 6.1m. The shape of the hole is oval. The width of the nest hole opening is 20.3cm, while the length is 25.4cm. The inclination of the nest hole opening is inclined downwards.

The site is already planted with harvestable coconut and a tree cover of more than 10ha. It was noticeable that there were a lot of Tugai (*Pometia tomentosa*) wildlings and here was only one visible trail inside the area. The Red Lauaan tree was very difficult to reach because of the strangling vines and thick undergrowth of the forest. There is no trail leading to it. The area is also beside a stream that leads to Sitio Biyo, Brgy. Kilogan.

When the monitoring team was about 25m from the Red Lauaan, a pair of Kalangays was heard. Jeremy climbed a tree to look for any visible dead tree. It was difficult to find because the tree was very low compared to other trees near by.

Brgy. Amaga is located west of Brgy. Kilogan. Sitio Bacong is located at the west beside Sitio Biyo. Based on previous sightings from 2006-2007 residents from

Sitio Biyo always say that the Kalangays seen are flying from the west to the east, and vice versa.



Figure 19. Jeremy inspecting the nest hole in Bgy. Amaga. ©LDans

Edgar Abaño inspected the surroundings of the Red Lauaan and said that the signs indicated that it was occupied. BC Ulleras vouched that the tree was occupied because his brother Jovi had intentions of getting the cockatoo chicks. Jovi Ulleras climbed the Batino (*Alstonia macrophylla*) which was about a meter away from the Red Lauaan but was not able to reach the nest hole to look in.

The second tree nest tree shown by BC Ulleras was a Banilad (*Sterculia philippinensis*) that is known to be occupied by a pair of Kagit (*Tanygnathus lucionensis*). The tree is on the property of BC Ullera's father-in-law. The tree is alive with an estimate height of 18m; nest hole opening estimate height is 12m. The estimate size of nest hole opening is 15cm horizontally and 20cm vertically. The inclination of the nest hole is downward. The nest tree is situated in a coconut plantation interspersed with tall hard and soft wood trees and smaller shrubs and vines.

Meanwhile in the Municipality of Burdeos, live Yakal (*Shorea astylos*), a potential cockatoo nest tree was measured. Estimated to be 30m in height and the trunk circumference is 3.4m, the position of the tree is in a sub-canopy surrounding vegetation interior of a forest about 150masl. The height of the nest hole opening is estimated to be at 18m. The nest hole is on a live branch protruding from the main trunk facing the west. The form of the nest hole opening is irregular with 21cm nest hole-opening horizontally and vertically. The nest hole opening is inclined sideways with a length of 100cm and the diameter of the nest chamber is 23cm. A pair each of Philippine cockatoos and Blue-naped parrots was seen near this nest tree on 14 July 2008.



Figure 20. One of the cockatoos that probably occupy the Yakal nest tree which was recently flashed using iron sheet with signage. ©LDans

Based on the emergence of new shoots, leaves on the cut branches made by the Kalangays and feathers on the ground, volunteers suspect a cockatoo occupying the said tree.

Conservation education

A perception evaluation was conducted last 5 June with some of Brgy. Amaga's officials and an elementary Teacher-in-charge. The evaluation sheet is in commentary format where the barangay officials were asked specific questions pertaining to biodiversity, some native bird species and the environment. The commentary sheet also addresses the reception of officials to biological and environmental initiatives. The evaluation showed that only 16.7% know what biodiversity means. Although they have heard such words as ecology and biodiversity, they do not really understand what it means. Most of them know what a Kalangay and Kagit is, but most of them have never seen the birds in their lifetime or have not seen the birds for several years now.

Three Basic Ecology Lectures were conducted in Brgys. Anibawan, Carlagan and Amaga on July 13, 14 and 17 respectively. Topics of the lectures focused on the concept of species, food pyramid, water cycle, parrots of Polillo Group of Islands, and global warming. The outreach activities were attended by ca. 100 individuals including students, farmers, kaingineros, fishermen, local government officials and some housewives. A perception survey was also conducted before every lecture to find out the level of awareness about environmental education among recipients. Based on the perception check, only 3% has an understanding of ecology and biodiversity in Brgy. Amaga. Based on a survey of grades 5 and 6 conducted last July 17, out of 40 children 42.5% engage in slingshot, nest poaching and trapping of animals in the wild.



Figure 21. Liza Dans, cockatoo project coordinator in Polillo conducting lecture with schoolchildren from Brgy. Amaga. ©PIBCFI

A Memorandum of Agreement between and among the Katala Foundation, Polillo Islands Biodiversity Conservation Foundation, Inc. and the Municipality of Patnanungan will be drafted soon. While in Burdeos, the mayor welcomed the efforts of PIBCFI-KFI in marking the nest trees and mother trees in the proposed LCA.

Coordination with the DENR Office in Real, mainland Quezon province was conducted.

Calamianes Project Cooperation with FFI-Philippines Program

After the May 1 meeting with cooperating organizations for the Calamianes Project and after settling all administrative and logistical issues, an area coordinator who is resident of Salvacion, Busuanga was contracted effective Aug. 25 until Oct 25, 2008 to collect all pertinent documents needed for SEP clearance approval. The project concept was translated into Tagalog for better understanding.

Priority project sites are Chinabayan Mountains' and the 'Wayan Mountain Range', both in Busuanga Municipality (west Busuanga Island); and 'Halsey Mountains and mangrove forest' and the Binudak-Kabulihan forest block', both in Culion Municipality (south-central Culion Island). Cooperating partners are the following: FFI-Philippines Program and

the Philippine Biodiversity Conservation Foundation, Inc.

Constraints and measures taken

- Patterns of movements to the mainland Narra indicate that cockatoos can be observed on the mainland year-round. Whilst this indicates successful nest protection scheme on Rasa, the bigger challenge is now on ensuring that dispersed individuals are safe on the mainland. We have done series of information campaigns already; nonetheless it is our vision to measure behavioral changes on Narra residents with reference to the influx of cockatoos on populated areas in the mainland. This will be done in close cooperation with PAMB under the Committee on IEC.
- As mentioned in previous report, there were lapses in the monitoring performance of the wardens in Dumaran. To minimize this and limitation of local climbers, warden-climbers from Rasa will be "imported" to Dumaran during height of breeding season to help them out.
- In Rizal while the security of wardens and field officer are mounting, we feel nest protection activities are as well affected. Because of the field officer's restricted access in the area, 13 wardens are not regularly monitored. We revise the wardening scheme in Rizal in order to maximize resources given the present security situation.
- A timely monitoring visit to Polillo must be done next breeding season with some help from the Palawan team.
- In Patnanungan, several issues remain unsolved e.g. boundary issues on location of nest trees; kaingin practices, land conversion from timberland to alienable and disposable land, non-visibility of government agencies like DENR and BFAR. While municipal actions are

focused on marine ecosystem, its Mayor is determined to support the parrot conservation project; hence, a memorandum among key players will be in force in the future. In Burdeos municipality, similar cases occur e.g. massive kaingin practice endangering proposed LCAs.

- Intensify IEC programs in the areas with proper evaluation and monitoring strategy to assess changes in awareness, knowledge and possibly behavior. This will be main activity for the cooperation with the local partners particularly the Polillo Islands Biodiversity Conservation Foundation, Inc. who is well based in the area.
- Along with intensive IEC, lobbying for the declaration of local conservation areas (LCAs) in both municipalities will be pursued in the next years.

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

Major highlight within the period was the visit of Pavel Hospodarsky, a Czech zookeeper who successfully bred the hornbill *R. waldenii* in Panay, Philippines. Upon invitation, Pavel spent two full days with the KFI and discussions involved, to wit:

- Practical designs for the cockatoo aviary and the porcupine enclosure;
- Improvements on the existing aviary at the quarantine section;
- Possible collaboration/advisory particularly but not limited to zookeeping protocols.

Activity highlights at the center for this reporting period include:

- Manual excavation to backfill the site for the cockatoo aviary was completed;
- Manual excavation to backfill the site for the porcupine enclosure was

completed. The design of the enclosure provides area for other species like mouse deer or pangolin however; this area is not yet being done;

- Repair of the caretaker's house and fences was completed;
- Temporary isolation enclosure for turtles was established while awaiting finishing of quarantine cells;
- Isolation and an elevated aviary for the confiscated hatchling from Pandanan constructed. The latter is aimed at providing more space for the bird to practice flight;
- Quarterly self-monitoring report in compliance to the requirements of the multi-partite team was submitted;
- Water pump was repaired;
- Nursery hut was repaired and seedbed for Malunggay was completed; and
- Since 26 August, KIEBC is connected to the Palawan Electric Cooperative.

Major landscaping was again aborted due to adverse weather conditions and non availability of government equipment e.g. backhoe and dumptrucks. Said machineries are either under repair, busy at the mining companies or with municipal projects.

Philippine Freshwater Turtle Conservation Project (PFTCP)

As of August 31, 2008 KIEBC holds 35 *Siebenrockiella leytensis*, 19 *Cuora amboinensis*, 11 *Cyclemys dentata*, and 1 *Dogania subplana*. Growth was monitored twice in the reporting period, once in May and once in August.

Regular biannual deworming was conducted in early August.



Figure 22. Manual excavations to backfill the sites for the aviary and the porcupine enclosure were completed. ©SSchoppe

The turtle care taker continuous daily observations of the animals with special reference to feeding, time of major activity, behavior and reproduction and biology. Mating was observed in three (*S. leytensis*, *C. amboinensis* and *D. subplana*) of the four species kept.

A total of 5 *S. leytensis* eggs were encountered in the reporting period. Most of them were not properly laid but just deposited in the water or in the mud. All did not develop and were discharged. It is expected that they were not fertile. So far, nobody has ever successfully bred *S. leytensis*.

The other two hard shell species were more successful. Five live and two dead *Cuora amboinensis* hatchlings and five eggs were encountered in the outdoor enclosure. Hatchlings are measured regularly to calculate the daily growth

rate. A total of six *C. dentata* eggs were encountered and transferred to a Styrofoam box with a sand-soil mixture for incubation.



Figure 23. Regular cleaning activities are done with the help of Narra wardens whilst they learn basic technical skills on turtle management. ©SSchoppe

In July enrichment planting in enclosures was conducted.

Thanks to the generous support from Chester Zoo, we were able to enroll our turtle care taker and two bird care takers in the upcoming zookeepers training seminar to be held in Puerto Princesa City from September 8-11, 2008.

Philippine Cockatoo

The confiscated cockatoo hatchling from Pandanan, Balabac, southern Palawan which was turned over to PWRCC on 30th

May was handed back by the said office to KFI for care on 4th June. PWRCC acknowledged that our wardens are skilled in raising cockatoo hatchling. This is also because a caretaker is stationed 24 hours at the center who could attend to the needs of the week-old hatchling.

Hence, the isolation cage was prepared and driftwood with cavity was placed to simulate a nest box where the hatching could rest. It was observed entering the nest box and at some times it goes out practicing its flight muscles. Perches and local trees as foliage were provided. It picks on the screened sand (substrate of the aviary), small things on ground, and plays with it. Blinds were installed in order to cover the birds from seeing caretakers and the rest of the birds particularly on its first month at KIEBC.

It was initially fed eight times in a day and reduced to four times a day from August to present. In the first months, a baby formula food, Cerelac, was spoon-fed to the hatchling. From middle of July this was mixed with mashed fruits and vegetables or boiled rice with mashed vegetables. Vitamins and minerals were as well given daily to the hatchling. The bird accepted the foods offered and is slowly weaning from being fed.

From the day it arrived in KIEBC on 4th June, its weight was monitored and results showed that it has reached a stable weight at present (Fig. 25).



Figure 24. The very young confiscated hatchling from Pandanan while being fed at the KIEBC (left). Recent picture of Pandanan hatchling inside the nest box. ©IRegodos.

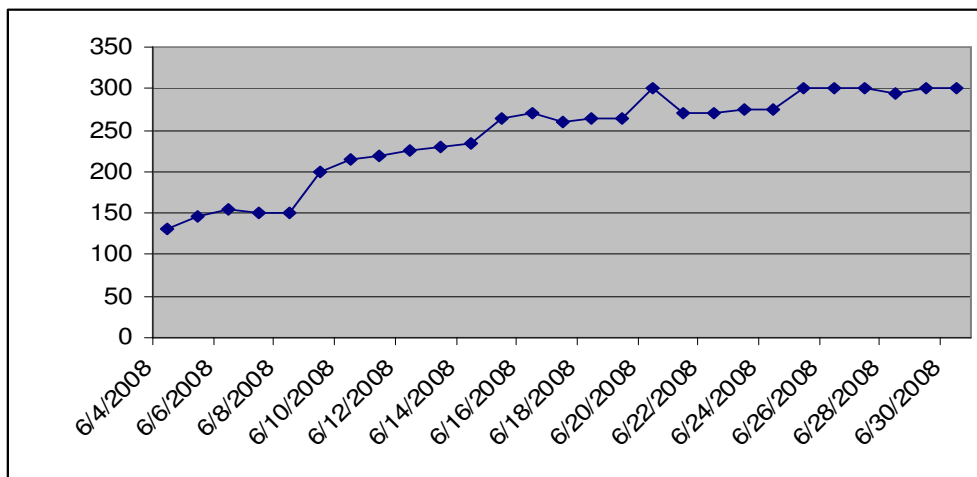


Figure 25. Daily weights of confiscated Philippine cockatoo from Pandanan from the day it arrived in KIEBC until end of June 2008.

“Blue” (one of the four adults in captivity) was observed with bare skin from neck to its cloaca. This was probably due to self-plucking. Plucked feathers were observed and collected from ground of the aviary. Silver who shares aviary with Blue was not observed plucking the latter’s

feathers. Violet, on one hand, was observed with no more red feathers on the vent.

Feeding plan for the adult birds was changed starting August. The new feeding schedule aims to improve supplies of vitamins and minerals the

birds require for normal healthy growth. Fresh fruits, vegetables, local wild berries, and cereals comprise its daily treats. These are either prepared with soft cereals or plain fresh cuts of fruits and green leaves and tubers. Drinking water is provided the whole day through. Fresh foliage and driftwood placed inside aviaries provide them the opportunity to play around.

In two occasions in June, wild cockatoos visit the center. One wild individual perched on the aviary in KIEBC and made birds inside the cage so noisy. Interaction was observed.

Meanwhile, these aviaries had been improved so as landscaping around the aviaries. Artificial nest boxes out of drift wood were placed in both cages providing private space for bonding birds (Blue and Silver; Violet and Brazil). Substrate is changed regularly and cleaning the aviary is done daily. Foliage is replaced every two days.

Constraints and measures taken

- The major landscaping activities in the center apparently are still undone due to unpredictable weather conditions in Narra and the availability of the equipment. Adding to the problem is the access road going to the center which is not yet done.
- Continuous rain and damp soils are probably responsible for shell rot that was recently encountered in some box turtles. Turtles were isolated, dry docked and treated. As of now most have recovered already.
- Starting June 2008, the PFTCP had to run all activities without the help of volunteers since these became too costly. After the cockatoo breeding season, two wildlife wardens were trained to assist the turtle care taker in the daily routine.
- We encountered problems with water supply from the deep well presumable caused by incompatibility of suction pump, generator and water pipes of deep well. After several adjustments problem persist and can probably only be solved by replacing the current pipes by larger ones.
- We encountered health problems in the purely aquatic turtles after freshwater intrusion from surrounding wetlands in connection with continuous rain at the end of June. Veterinarians from PWRCC, PAWVI, and Singapore Zoo were consulted, and the sick animals were treated accordingly. Nevertheless we experienced fatalities, the corpse of which had been dissected and samples taken for histopathology. The analysis of this is currently facilitated by DENR PAWB.
- An additional small quarantine enclosure was constructed to allow easy monitoring of weak turtles.
- Philippine cobras were repeatedly seen in the turtle area. The death of one Philippine Forest Turtle last year can probably be charged to a cobra encounter.
- The Pandanan hatchling will be moved to a bigger aviary in order to give ample space for flight practice. A hanging aviary is now in progress.
- Feather plucking has several reasons e.g. psychological, nutritional deficiency. All four birds were carefully monitored day and night on this problem. Blue, however, may be subjected to application of a neck collar to restrict him from plucking its feathers though there are feathers slowly regenerating.
- Sorghum was planted around the center to attract as well birds as this is locally consumed. However, this has as well attracted rats in and around KIEBC. Traps were installed and caught rats were properly disposed to other locations.

Other highlights

Pandanan Cockatoo Survey

The viable population of remnant Philippine cockatoos on Pandanan probably is the second densest in the wild next to Rasa Island. This makes it a priority for a conservation project to be implemented. In this survey, the impressive support of the local government of Bgy. Pandanan indicates their interest in the project and is crucial for project implementation. So long as the security allows within the area, nest protection and conservation education initiatives are potential.

Please refer to attached report (Annex 3).

Rasa's inclusion as top birdwatching sites in the Philippines

Rasa Island Wildlife Sanctuary was selected as one of the top 13 birdwatching sites in the Philippines recently by the Department of Tourism, Philippines. The said department is promoting birdwatching as an alternative activity that could promote the Philippines locally and abroad. The validation team visited Rasa in July. The book entitled Birdwatching in the Philippines Vol. 1 will be launched in September.

Anniversary Planning

Two publications are in process to highlight the 10th anniversary celebration of the Philippine Cockatoo Conservation Programme. The anniversary PCCP publication will highlight the 10 years of implementation and the future plans of the programme while the other publication is a compilation of biodiversity researches conducted in cooperation with or initiated by the KFI. The official webpage of the PCCP will also be launched during the affair with a photo exhibit that features field activities on species and people. Photos are donated kindly by Benedict Laender, Peter Widmann and Sabine Schoppe.

Phylogeny and Taxonomic Status of the Palawan Pangolin

Last 30 June to 2 July 2008 TRAFFIC Southeast Asia and Singapore Zoo have hosted a Pangolin Workshop in Singapore. KFI was invited to present its study on the Palawan Pangolin *Manis culionensis*. This triggered among others the collaboration of KFI with the University of Kansas and the Laboratory of Genomic Diversity of the National Cancer Institute in the USA. Collaborators agree on the need of a Phylogenetic study of the Palawan Pangolin, a species with a very limited range of distribution that is threatened by local consumption, trade and habitat destruction. KFI committed to provide the necessary samples for a genetic study to be collected under GP 171 of the University of Kansas. A joint publication is expected to be submitted for publication in the first half of 2009.

Population Survey of Southeast Asian Pangolins

During the Pangolin workshop in Singapore a Biology and Ecology Working group was created. The group identified as main limitation in conducting population studies which are needed to assess impact of hunting, the very limited knowledge on the biology and ecology of all SEA species. Research priority should therefore be given to identifying methods on how to quantify populations. Therefore hunters who know how and where the species is collected should be interviewed over the range of distribution of the various species. The working group was able to elaborate a questionnaire that currently waits to be tested in the field. KFI took the responsibility of providing the necessary information for the Palawan Pangolin.

Linkages and Networking

Shell Filipinas Foundation

After a meeting with the Program Manager of Shell Filipinas Foundation in June, a proposal was submitted for consideration by next year. This proposal intends to implement “Community-based buffer zone management around cockatoo reserves on Dumarán Island, Dumarán, Palawan”.

Partnership with Private Donor

Benedict de Laender, a Belgian national who frequents Rasa Island and Rizal project sites had pledged financial support to the KFI for the PCCP. Benedict is as well a photographer who had taken wonderful wildlife pictures at project sites. We used some of his pictures for the project e.g. brochures, other information materials. He has donated some for the upcoming photo exhibit in celebration of the 10th PCCP anniversary in December 2008 for which proceeds directly go to the foundation.

Darwin Scholarship Program and Chester Zoo visit

KFI founding member and board secretary was among the 21 scholars from 21 different countries who received the scholarship program “Monitoring and Communicating Biodiversity” at Shrewsbury, UK on 8-18 August 2008. Debbie presented her work with the PCCP before fellow scholars and organizers of the programme and distributed information materials. The programme exposes the young scholars to becoming better naturalists through three-fold focus areas: skills of observation and identification, skills of recording biodiversity and skills of communicating biodiversity in different target groups. They traced Darwin’s roots and visited several institutions to exchange with experts on differing fields. This opportunity is expected to benefit and strengthen KFI’s conservation education initiatives.

Her visit was made possible through the financial support from Conservation Leadership Program of the BP; Avifauna, Netherlands and friends and family.



Figure. 26. Debbie at the Natural History Museum in London as part of the activities of the training programme she attended in August. ©KFI

During her stay in UK, she also took the chance to visit Dr. Wilkinson from Chester Zoo and was privileged to be given a grand tour at the Chester Zoological Gardens which highlighted her meeting with zoo staff in particular with Anne Morris (wife of Paul who was with us during the translocation project), Andrew Woolham from the Parrot Breeding Center and Maggie Esson, the Education Programme Manager. Debbie was treated with the opportunity to feed the Humboldt’s penguin *Spheniscus humboldti* while visitors were watching. Dr. Wilkinson was so kind to send some treats (caps, shirts) to the programme staff in the Philippines and copies of the Annual Report.

Her full report can be requested from KFI or personally from Debbie.

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

- Schoppe, S. and R. Cruz, *under review*. The Palawan Pangolin *Manis culionensis*. Proceedings of the Workshop on Trade and Conservation of Pangolins Native to South and

Southeast Asia. Singapore Zoo, 30 June – 2 July 2008. Submitted for publication to TRAFFIC SEA on 13 August 2008.

- Schoppe, S. and M. Cervancia, *under review*. Herps of Pagdanan Range and Dumarán, Northern Palawan, Philippines. HAMADRYAD (submitted 28 April 2008).
- Radio guestings at DYPR, Puerto Princesa from July to August 2008 on topics on wildlife trade and other threats to Katala and cavity nesting birds such as illegal logging; illegal wildlife trade in general and about the Pandanan survey recently conducted. These radio guestings were in cooperation with the Environmental Legal Assistance Center (ELAC).
- Radio guesting at DYSP, Puerto Princesa on 26 August 2008 on status of the Philippine cockatoo and updates of the PCCP after ten years of project implementation on Palawan.
- GMA's "Born to be Wild" program features on the Philippine Pond Turtle and on Wildlife Trade featured on 23rd and 30th July 2008.
- Open water diving, Danny Villaruz, 25-26 June 2008, Narra, Palawan.
- Powerpoint presentation on "Wildlife trade in Palawan and its linkages to other parts in the Philippines", Wildlife Trade Regulation Training Workshop, June 26, 2008, Manila, by Traffic Southeast Asia.
- Powerpoint presentation on "The Palawan Pangolin *Manis culionensis*", Workshop on Trade and Conservation of Pangolins native to South and Southeast Asia, June 30 to July 3, 2008, Singapore Zoo, by Singapore Zoo and TRAFFIC SEA.
- Integrated Farming and Bio-System Training, July 1-4, 2008, Narra, Palawan.
- BEENET Conference, St. Exekiel Moreno Spirituality and Development Center, July 23-25, 2008, PPC, Palawan.
- "Monitoring and Communicating Biodiversity", 8-18 August 2008, Shrewsbury, UK.
- CI-Consolidation and Integration Workshop for Mt. Mantalingahan Protected Landscape, 12-14 Aug. 2008, Puerto Princesa City, Palawan.
- Integrated Farming and Biogardening System Training, Aug. 26-30, 2008, Dumarán, Palawan.

Other remarkable records/events

- Two Lesser frigate birds and 30+ Pied imperial pigeons crossing from Rasa to Antipuluan on 15th May 2008;
- Carcass of dugong was stranded on 20th July on Rasa, measured 63cm in diameter at biggest part of body and 1.8m in remaining length since about 60cm were cut off. Probably this was poached; internal organs were also removed.

Summary of relevant seminars, expeditions and workshops organized and attended

- Biodiversity Monitoring Workshop, Oberoi, 11 June 2008, PPC, Palawan. Organized by CI-Philippines.

Equipment Status

- Project car underwent several check ups incl. among others tire rotation, wheel alignment, brake service, diesel filter change.
- Project boats had regular change of engine oil.
- Officer desk top computers in PPC and Narra underwent several repairs and need soon to be replaced.

- Office printer in PPC had several failures and repairs. New scanner was bought.
- Generator used to pump water from deep well had several adjustment of pipe connections. Larger pipes and an electric pump now that electricity was installed in KIEBC are envisioned.
- The only project digital camera got destroyed and repair costs are as high as costs for replacement.

Implications for further work

- Cockatoo mainland dispersal requires intensive conservation education campaign that should be monitored and evaluated to assess behavioral changes among residents.
- Threats on staff and wardens affect greatly project implementation in Rizal. This jeopardizes conservation outcomes.
- Pandanan survey results suggest a potential project site implementation. If security allows, a project grounded on nest protection and conservation education would be vital.
- Though the new administration of the local government in Narra is generally supportive to PCCP, plans for tourism development are often straying away from the conservation priorities of Rasa. A close dialogue in these issues will be sought.

Planned targets and activities for the next reporting period.

Output 1

- Wardening scheme continued / Monitoring and routine patrolling of Rasa and mainland coasts by wardens and volunteers;
- Mainland monitoring intensively pursued along with intensive IEC campaigns on presence of cockatoos on mainland areas;

- Routine patrol and monitoring; search for potential nest trees continued;
- Installation of other artificial nest boxes on Rasa;
- Conservation education continued;
- Capacitating PAMB members; mainland volunteers and other stakeholders continued;

Output 2

- Wardening scheme continued / Monitoring and routine patrolling on Dumarán and nearby islands;
- Search for potential nest trees and roost sites continued;
- Capacity building for LPAMC members and other stakeholders;
- Conservation education continued
- Nursery care and management.

Output 3

- Nest and roost monitoring continued / wardening scheme continued but maybe reduced in number;
- Livelihood monitoring continued;
- Capacity development of LPAMC members and other stakeholders;
- Securing protection of wetland in Bgy. Candawaga and forest patch in Bgy. Ransang under local government;
- Conservation education continued.

Output 4

- Continued monitoring of cockatoo population and its habitats in all project sites;
- Monitoring of plant phenology; performance of relevant tree species grown in nurseries, nest trees, roost sites, ANBs, in all project sites;
- Conservation education activities and capacity building for wardens in Polillo continued;

- Information campaigns in confirmed cockatoo sightings in Palawan;
- Lobbying for local legislation protecting cockatoo habitats in Patnanungan Island, and Burdeos, Polillo.
- Installation of artificial nest boxes
- Characterization of potential nest trees

Output 5

- Continuation of landscaping as long as weather conditions allow and equipment available;
- Access road improvement;
- Fund raising efforts continued.

Worksheet May - August 2008, PCCP, Palawan, Philippines

| KEY PROJECT ACTIVITIES | DATE | INVOLVED PERSON(S) |
|--|---------------|--------------------------------|
| Rizal trip (Breeding Season 2008 preparation) | May 01, 08 | RMC |
| Cockatoo observation at Lagan Roost Area | May 01.08 | MP |
| Setting of aviary for rescued cockatoo | May 01-02.08 | SHD |
| Encoding of receipts for financial reporting | May 01-10.08 | JMT |
| Drafting of Management Plan for RIWS | May 01.08 | SS, IDLW, JMT |
| Meeting with William Oliver and Co. re Calamianes and Polillo cooperation | May 01.08 | SS, IDLW |
| Editing of PFTCP Fact Sheet | May 02.08 | JMT |
| Ringling of 9 cockatoo hatchlings from RIWS | May 02.08 | SHD, wardens, PASu Dep. Alfaro |
| Facilitation and attendance to RIWS 9 th PAMB Regular Meeting | May 05.08 | IDLW, SHD, JMT, IR, RMC |
| Cockatoo crier in Mainland Stations, Narra | May 05.08 | RMC |
| Project site visit, Narra | May 05.08 | IDLW, SS |
| Ringling of 12 cockatoo hatchlings and feather sampling from RIWS joined by PASu Tactay | May 06-07.08 | SHD, RMC |
| Assistance and guiding to researcher from UPLB | May 07.08 | SHD |
| SKM 10 th remittance report | May 07.08 | JMT |
| Facilitate poster making and essay writing contest | May 07.08 | Mel P |
| Cockatoo nest checking | May 08-10.08 | MP |
| Visitation to Proposed Tourism Spot in Trident Area, Nara | May 08.08 | SHD |
| Katala Fun Day during Antipuluan 49 th Founding Anniversary | May 08.08 | SHD, JMT, IR |
| Banding of cockatoos and wardens meeting in Ransang, Rizal | May 08-09, 08 | RMC |
| Ringling of 10 cockatoo hatchlings, blood and feather sampling | May 09.08 | SHD |
| Facilitate approval of Transport Permit of feather samples from Rizal | May 09,08 | RMC |
| Scheduling of IEC/Presentation of PCCP to ABC Meeting | May 09.08 | IR |
| Securing documents for Calamianes Project | May 09-21.08 | JMT |
| Ringling of cockatoo hatchlings from nest # 31 joined by the PAMB Chairman Atty. Clarito D. Demaala, Jr. | May 11.08 | SHD |
| Radio guesting at Radyo Natin Narra | May 12.08 | SHD |
| Facilitation of turn-over of dead cockatoo to PWRCC | May 12.08 | IR |
| Repairing of books | May 12.08 | Mel P |
| Transfer of seedlings from nursery to experimental plot | May 12-15.08 | MP |
| Planning for 5 th Kalabukay Festival, Dumarán | May 12-16.08 | JMT |
| Conduct of lecture to elementary pupils | May 13.08 | Mel P |
| Mainland cockatoo count | May 13-15, 08 | RMC |
| Coordination with LGU Dumarán for 5 th Kalabukay Festival | May 14.08 | IDLW, JMT |
| Car check up | May 14.08 | IDLW |
| Meeting with SK Poblacion council (IEC caravan) | May 14, 08 | RMC |
| Coordination with Balabac contacts | May 14.08 | IDLW |
| Wardens meeting | May 15.08 | SHD |
| Verification of cockatoos at Tandol, Antipuluan, Narra | May 16,08 | RMC |
| Flashing of nest # 56 | May 16.08 | SHD |
| Ringling of 2 cockatoo hatchlings from Omoi, Dumarán | May 17.08 | MP |
| Cockatoo blood sampling | May 17.08 | SHD |
| Conduct of IEC at Barangay Taritien Council, Narra | May 17.08 | IR, RMC |
| FGD at So. Casipulo, Barangay San Juan, Dumarán | May 17.08 | MP |

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| Meeting with Kamarikutan re PCCP anniversary | May 17.08 | IDLW |
| Cockatoo blood sampling at RIWS | May 18.08 | SHD |
| Verification and checking of hornbill nest | May 18.08 | MP |
| Blood sampling of Ransang cockatoos (#0056 and 0057) | May 18,08 | RMC |
| Facilitated confiscations of timbers in Ransang, Rizal | May 18,08 | RMC |
| Prepared Tour package for Bird Festival delegates to RIWS | May 19,08 | RMC |
| Cockatoo blood sampling | May 20.08 | SHD, MP |
| Conduct of IEC in Barangay Panacan I, Narra | May 21.08 | IR |
| Coordination of Pandanan Survey to NAVFORWEST and CENRO Brooke's Point | May 21-24.08 | JMT |
| Cleaning and under brushing of experimental plot area | May 22.08 | MP |
| Conduct of IEC in Barangay Antipuluan, Narra | May 22.08 | IR, RMC |
| Ringling of 3 cockatoo hatchlings from RIWS | May 22.08 | SHD |
| Sporadic mainland cockatoo count in Narra | May 23,08 | RMC |
| Securing documents for SEC update | May 23-26.08 | JMT |
| Nest verification and checking of newly discovered nests | May 23-28.08 | MP |
| Measurement of Kalaw Food seedlings | May 25.08 | SHD |
| Preparation for trip to Pandanan Island, Balabac | May 25-28.08 | SHD, IDLW |
| Quarterly growth monitoring of turtles | May 26.-27.08 | DA |
| Sporadic mainland cockatoo count in Narra | May 27, 08 | RMC |
| Rizal trip (Nest Characterization and BS 2008 monitoring) | May 28-31,08 | RMC |
| Trip to Pandanan Island, Balabac | May 27-30.08 | IDLW, SHD |
| Consolidating data for progress report | May 29-30.08 | SS |
| Transcription of Rizal LPAMC minutes of the meeting | May 28-30.08 | JMT |
| FGD and confiscation of one cockatoo hatchling from Balabac | May 28.08 | SHD, IDLW |
| Film showing at Purok Pag-asa, Barangay Antipuluan, Narra | May 29.08 | IR |
| Wardens meeting on status of BS 2008 and other issues in CMRPA, Rizal | May 29,08 | RMC |
| Presentation on wetlands at Bgy. Candawaga council, Rizal | May 30,08 | RMC |
| Facilitate transport of confiscated birds in Rizal & wardens meet | May 31,08 | RMC |
| Planning meeting for PCCP Phase VII | May 31.08 | SS, IDLW, PW |
| Maintenance and operation of KEEC and library | May 01-31.08 | Mel P |
| PTPR Jan - April 08 Writing | May 08 | IDLW |
| Overseeing construction, maintenance and landscaping at KIEBC | May 01-31.08 | SHD |
| Consolidation and writing of reports | May 01-31.08 | SHD, JMT, IR, RMC |
| Communication and liaising to offices | May 01-31.08 | JMT, IR, RMC |
| Consolidation of cockatoo arrivals, mainland counts and verification of recent cockatoo sightings in Narra | May 01-31,08 | RMC |
| Meeting with Shell Filipinas | Jun. 01.08 | IDLW, PW |
| Coordination and preparation for 5th Kalabukay Festival and 2nd Katala Festival | Jun. 01-12.08 | JMT, RMC |
| Meeting with managers re: 2nd Katala Festival | Jun. 02.08 | SS, IDLW, JMT |
| Planning meeting with Pavel Hospodarsky re aviary and porcupine enclosure design | Jun. 02.08 | SS, IDLW, PW |
| Facilitate registration of seedlings at Dumaran Experimental Plot and Demo Farm | Jun. 02.08 | JMT, MP |
| IEC in Barangay Poblacion, Narra | Jun. 02.08 | IR, RMC |
| Facilitate invitation and ground preparation for 5th Kalabukay Festival | Jun. 02-13.08 | Mel P |

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| Verification of cockatoos in Quirino extension, Narra | Jun.03,08 | RMC |
| FGD at Barangay Sto. Tomas, Dumaran | Jun. 03.08 | Mel P |
| KIEBC site visit with P Hospodarsky re enclosures designs | Jun. 03.08 | SS, IDLW, PW |
| Meeting with Consultant on Captive Breeding at KIEBC | Jun. 03.08 | SHD |
| Renewal of Abukay Bay and River License at MARINA | Jun. 03.08 | JMT |
| Sporadic mainland cockatoo count in Narra | Jun.03-04,08 | RMC |
| Securing documents for SEC Update | Jun. 03-05.08 | JMT |
| Preparation of materials and agenda for staff meeting | Jun. 04.08 | JMT |
| Release of memo and invitation for Walk for a Cause | Jun. 04.08 | JMT |
| Interview Radio ng Bayan re. PCCP anniversary and BS. CITES poster Philippines (TRAFFIC). Preparation for staff meeting re work plan and accomplishments. Porcupine enclosure planning with Pavel | Jun. 04.08 | SS |
| Meeting with Pandanan Bgy. Captains | Jun. 04.08 | IDLW, SS, PW |
| KFI Staff meeting | Jun. 05.08 | SHD, JMT, IR, MP, SS, IDLW, RMC |
| Presentation of PCCP at ABC Regular Meeting in Narra | Jun. 06.08 | SHD, IR, RMC |
| Meeting for PCCP 10th Anniversary Preparations | Jun. 05-06.08 | IDLW, SS |
| CMRPA management plan drafting | Jun. 06-09.08 | SS |
| Coordination with water works for water supply connection | Jun. 06.08 | IR |
| Facilitate preparation on battle of the band competition | Jun.06,08 | RMC |
| CITES ID sheet preparation for TRAFFIC workshop Manila | Jun. 07.08 | SS |
| Meeting with Sen. Zubiri, KFI President | Jun. 07.08 | IDLW |
| Drafting pangolin presentation for Singapore workshop. CMRPA Management Plan | Jun.08.08 | SS |
| IEC (crier) at Poblacion, Narra | Jun. 09.08 | SHD, IR, RMC |
| FGD at Purok Damayan, Barangay Panacan, Narra | Jun. 09.08 | IR |
| Guiding and assistance to visitors | Jun. 09.08 | SHD |
| Confiscation of chainsaw and timbers in Ransang & Culasian, Rizal | Jun.09,08 | RMC |
| Verification of cockatoo hatchlings in Ransang, Rizal | Jun.09,08 | RMC |
| LPAMC Meeting Rizal | Jun. 10.08 | SS, RMC |
| Preparation of evidences and sworn statements (chainsaw and timbers confiscation) | Jun.09-15,08 | RMC |
| CI Philippines Biodiversity Monitoring Workshop | Jun. 11.08 | SS |
| Coordination meeting and preparation for Kalabukay Festival | Jun. 10-12.08 | MP |
| PCSDS meeting re Fidenci. Festival preparation. Anniversary preparation | Jun. 12.08 | SS |
| Distribution of invitation and coordination for 2nd Katala Festival | Jun. 12-19.08 | IR, RMC |
| FGD at Purok Pagkakaisa, Barangay Malinao, Narra | Jun. 14.08 | IR |
| Drafting of pangolin presentation | Jun. 14.08 | SS |
| Celebration of 5th Kalabukay Festival – Dumaran | Jun. 14-18.08 | SS, JMT, MP, Mel P |
| Film showing and environmental games, Narra | Jun. 15.08 | IR |
| Facilitation on confiscation of 1 Cockatoo individual with DENR Ring No.0039-01 and turned over to PWRCC | Jun. 16.08 | SHD |
| IEC at Barangay Elvita, Narra | Jun. 16.0 | IR |
| Facilitate turn-over of confiscated chainsaws in Rizal to PCSD | Jun.18,08 | RMC |
| Coordination and preparation for Malunggay Planting | Jun. 18.08 | SHD, IR, RMC |
| Assistance in Municipal ground clean-up, Dumaran | Jun. 19.08 | MP, Mel P |
| Malunggay planting activity (planted 150 cuttings) | Jun. 19.08 | SHD, IR, RMC |

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| Celebration of Environmental month and 2nd Katala Festival 2008 in Narra | Jun. 19-21.08 | SHD, JMT, IR, SS, RMC |
| Wardens meeting | Jun. 21.08 | SHD |
| Drafting presentation for CITES workshop, Manila | Jun. 21-22.08 | SS |
| Report of expenses for festival | Jun. 22.08 | JMT |
| FGD at Purok Bliss, Barangay Panacan, Narra | Jun. 23.08 | IR |
| Conduct of intensive cockatoo mainland monitoring | Jun. 23-27.08 | SHD |
| Wildlife trade presentation, CITES workshop, Manila | Jun. 24-26.08 | SS |
| FGD at So. Salvacion, Barangay Poblacion, Dumarán | Jun. 26.08 | MP, Mel P |
| Reporting to partner agencies (scheduled Timber trade shipment in Rizal to Malaysia) | Jun.26,08 | RMC |
| Checking and counting of newly planted trees at experimental plot | Jun. 27.08 | MP |
| Finalize Pangolin presentation | Jun. 27.-28.08 | SS |
| Cockatoo observation at Lagan Roost Area | Jun. 28.08 | MP |
| Prepared feeding variants and schedule for KIEBC cockatoos | Jun.29,08 | RMC |
| Pangolin workshop, Singapore Zoo, Singapore | Jun. 29.-Jul. 03.08 | SS |
| Wardens meeting | Jun. 30.08 | SHD |
| Maintenance and operation of KEEC and library | Jun. 01-30.08 | Mel P |
| Overseeing construction, maintenance and landscaping at KIEBC | Jun. 01-30.08 | SHD, MB |
| Consolidation and writing of reports | Jun. 01-30.08 | SHD, JMT, IR, RMC |
| PTPR Writing | Jun. 08 | IDLW |
| Communication and liaising to offices | Jun. 01-30.08 | JMT, IR, RMC |
| Regular maintenance of turtles and enclosures | Jun. 01.-30.08 | DA |
| Facilitate signing of Mayor's permit (PCCP clearances) | Jul.01,08 | RMC |
| Verification of cockatoo sightings, Dumarán | Jul. 01-02.08 | MP |
| Attendance to IFBS Training | Jul. 01-04.08 | SHD |
| Encoding of Pandanan Nest Characterization Data, Festival Rept. | Jul. 03.08 | JMT |
| Assessment of health status of turtles and inspection of birds, KIEBC | Jul. 03.08 | SS, DA, SHD |
| Rizal trip (Nest characterization and BS 2008 monitoring) | Jul.03-12,08 | RMC |
| Consolidation of nest data sheets | Jul.04-15,08 | RMC |
| Confiscation of assorted timbers in Rizal | Jul.05,08 | RMC |
| IEC at Plaza, Barangay Poblacion, Dumarán | Jul. 04.08 | Mel P |
| Application of turtle transport permit | Jul. 07.08 | IR |
| Facilitated repair of generator set for water pump at KIEBC | Jul. 08.08 | SHD |
| Meeting with Project Co-Manager | Jul. 08.08 | SS, SHD, IR |
| Confiscations of assorted timbers in Ransang, Rizal | Jul.09,08 | RMC |
| Coordination for Dumarán 4th LPAMC meeting | Jul. 09-11.08 | MP |
| PTPR. Develop questionnaire on local pangolin knowledge | Jul. 09.08 | SS |
| PTPR. Modify turtle SOAP form | Jul. 10.08 | SS |
| FGD to PSU College students, Dumarán | Jul. 10.08 | Mel P |
| Finalizing and submission of Dumarán SWEO Reports | Jul. 10-11.08 | JMT, SS |
| Submission of PTPR Jan – April 08 | Jul. 11.08 | IDLW |
| Preparation of LPAMC and BS, Dumarán. | Jul. 11.08 | SS |
| Fill up SOAP for all turtles | Jul. 10.08 | DA |
| Preparation, printing, and submission of 1st Qtr 08 PTPR | Jul. 11-15.08 | JMT |
| FGD at So. Debdeb, Barangay Bohol, Dumarán | Jul. 12.08 | MP |
| Radio guesting ELAC re threats to Katala. Analysis of SOAP forms | Jul. 12.08 | SS |
| Blotter death threats of KFI wardens and personnel to PNP | Jul.12,08 | RMC |

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| Transcription of PAMB minutes of the meeting | Jul. 14.08 | IR |
| Vet consultation (Singapore Zoo, PAWB). Follow up Rizal case | Jul. 14.08 | SS |
| Submission of sworn statements and signing of documents (case preparation on timber trade violators in Rizal), assistance to PNP | Jul.14-15,08 | RMC |
| Media coordination re illegal timber trade | Jul. 14.08 | IDLW |
| Assistance to MPS Rizal for envi. related cases filing | Jul. 15.08 | JMT, SS |
| Wardens meeting | Jul. 15.08 | SHD |
| Progress report submission to local partners | Jul. 15.08 | SS |
| Attendance to 1st Dumarán ECAN Board Meeting | Jul. 15.08 | MP |
| KIEBC Self Monitoring Report | Jul. 16.08 | JMT |
| Conduct of Post survey for Kalabukay Festival | Jul. 16-17.08 | Mel P |
| Received recognition from PENRO for attending Earth Day. Follow up collaboration KSK. Discuss collaboration with Cancer Institute and University of Kansas re. Pangolin phylogeny | Jul. 16.08 | SS |
| Phenological monitoring | Jul. 17.08 | MP |
| Draft pangolin paper for Singapore proceedings | Jul. 18.08 | SS |
| Preparation and translation of feeding guidelines and plans | Jul. 17-19.08 | IDLW, JMT |
| Arrangement: wildlife trade operation in Rizal with CIDG & GMA7 | Jul.18,08 | RMC |
| Verification of cockatoo sightings, Dumarán | Jul. 19.08 | MP |
| GMA7 Born to be Wild re Wildlife trade interview | Jul. 20.08 | SS |
| GMA7 Born to be Wild assistance in Narra | Jul.21,08 | RMC |
| Meeting with Manager | Jul. 21.08 | SS, IR |
| Consolidate turtle data. Pangolin publication | Jul. 21.08 | SS |
| Drafted proposal for 2009 LGU Budget Appropriations | Jul. 21.08 | JMT, IDLW |
| Landscaping and enhancement of new wardens camp | Jul. 21-31.08 | MP |
| Preparation for BS Assessment Meeting 2008 | Jul. 22-28.08 | JMT |
| Assistance in recovery and disposition of 1 Dugong | Jul. 22.08 | SHD |
| Facilitation of DOT, WBCP and PCVC visit to RIWS and Narra | Jul. 22-23.08 | SHD, SS, RMC |
| Consolidation of Wardens BS Evaluation | Jul. 23.08 | SHD |
| Facilitated staff attendance to BEENET Workshop | Jul. 23.08 | JMT |
| Attendance to A. Jakarya case at MCTC in Quezon | July 23-24,08 | RMC |
| IEC to Local Enforcers in Narra | Jul. 24.08 | SHD, IR |
| Meeting with CI re Management Plan PA Culasian | Jul. 24.08 | SS |
| Application for turtle transport permit | Jul. 25.08 | JMT |
| TRAFFIC ID sheet revision | Jul. 27.08 | SS |
| Meeting and reorganization of NYOFEC | Jul.27,08 | RMC |
| FGD to farmers of Barangay Poblacion & Sto. Tomas, Dumarán | Jul. 28.08 | Mel P |
| Bird feeding monitoring sheets preparation | Jul. 25-28.08 | IDLW |
| Wildlife trade operation with CIDG in Quezon (2 Hill Myna confiscated) | Jul. 28,08 | RMC |
| Preparation of buffer zone proposal for Shell Foundation and BS Narra. | Jul. 29.08 | SS |
| Breeding Season Assessment 2008 in Narra | Jul. 29.08 | SHD, JMT, IR |
| Submission of 2009 Budget Appropriation Proposal to LGU Narra | Jul. 29.08 | JMT |
| Discuss turtle health status with Doc Joanne Justo, PWRCC | Jul. 30.08 | SS, DA |

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| Preparation of buffer zone proposal for Shell Foundation. PWRCC re sick turtles | Jul. 30.08 | SS |
| Maintenance and operation of KEEC and library | Jul. 01-31.08 | Mel P |
| Financial Reporting for 1st Qtr 08 | Jul. 01-31.08 | JMT |
| Overseeing construction, maintenance and landscaping at KIEBC | Jul. 01-31.08 | SHD, MB |
| Consolidation and writing of reports | Jul. 01-31.08 | SHD, JMT, IR |
| Financial reporting | Jul. 08 | IDLW |
| Communication and liaising to offices | Jul. 01-31.08 | JMT, IR |
| Regular maintenance of turtles and enclosures | Jul. 01.-31.08 | DA |
| Consolidation of cockatoo arrivals, mainland counts and verification of recent cockatoo sightings in Narra | Jul.01-31,08 | RMC |
| Office errands and operations | Aug. 01-05.08 | JMT |
| Rizal trip (BS 2008 updates and wardens meeting) | Aug.01,08 | RMC |
| Interview Calamianes applicant for local coordinator. First aid of sick and necropsy of dead turtle | Aug. 01.08 | SS |
| Necropsy of dead turtle | Aug. 02.08 | SS |
| Coordination for Bislig Project | Aug. 02.08 | IDLW |
| Phenological monitoring | Aug. 02.08 | MP |
| Preparation for Dumarán BS Assessment 2008 | Aug. 02-03.08 | JMT, MP |
| Deworming of turtles | Aug. 02.-04.08 | DA |
| Pangolin paper writing | Aug. 03.08 | SS |
| Submission of financial report | Aug. 04.08 | IDLW |
| Facilitate rescue and release of 1 individual Hawksbill turtle | Aug. 04.08 | MP, Mel P |
| Preparation for Dumarán 4th LPAMC Meeting | Aug. 04-05.08 | JMT, SS |
| Finalizing of cockatoo mainland route | Aug. 05.08 | SHD |
| Preparation for BS Assessment and Dumarán Trip | Aug. 05.08 | SHD |
| Breeding Season Assessment 2008 in Dumarán | Aug. 06-07.08 | SS, SHD, JMT, MP |
| Dumarán 4th LPAMC Regular Meeting | Aug. 07.08 | SS, SHD, JMT, MP, Mel P |
| Re-organization of SKM-Dumarán Chapter | Aug. 08.08 | JMT, MP |
| FGD to So. Manambaling farmers | Aug. 08.08 | JMT |
| Travel to PPC. SOAP for dead turtles. Summary BS and LPAMC | Aug. 08.08 | SS |
| Landscaping and enhancement of new Dumarán Wardens Camp | Aug. 08-10.08 | SHD, MP |
| Sporadic mainland cockatoo count in Narra | Aug.09,08 | RMC |
| Pangolin paper writing | Aug. 10.08 | SS |
| Fixing of ABU-1 Nest flashing | Aug. 11.08 | SHD, MP |
| Transcription of LPAMC meeting of Rizal | Aug.11,08 | RMC |
| Dumarán TWG (wardens) Meeting | Aug. 11.08 | SHD, MP |
| Detailed transcription of 3rd & 4th LPAMC minutes | Aug. 11-12.08 | JMT |
| Film showing at Narra Bible Baptist Academy | Aug. 12.08 | IR |
| Post-mortem report turtles. Amendment 4th LPAMC minutes. Finalize 9th PAMB minutes | Aug. 12.08 | SS |
| Attendance to MMPL Mgt Planning Workshop | Aug.12-14,08 | RMC |
| Finalize and submit pangolin paper. Budget Dumarán buffer zone management. 10th PAMB notice | Aug. 13.08 | SS |
| Meeting for PCCP 10th Anniversary, Meeting with Sen. Zubiri | Aug. 13.08 | IDLW |
| Encoding of turtle SOAP forms | Aug. 13-14.08 | JMT |
| Narra wardens meeting | Aug. 15.08 | SHD |
| Dumarán buffer zone proposal, Meeting of managers | Aug. 14-16.08 | SS, IDLW |
| Posting of receipts | Aug. 15-18.08 | JMT |
| Sporadic mainland cockatoo count in Narra | Aug.16,08 | RMC |

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| Facilitate estimate and assessment of KIEBC electrification | Aug. 16.08 | SHD |
| Meeting with manager | Aug. 18.08 | IR |
| PFTCP 2007 and 2008 progress report writing | Aug. 18.08 | SS, IDLW |
| Verification of cockatoo sightings, Dumaran | Aug. 18.08 | MP |
| FGD with PSU College students, Dumaran | Aug. 18.08 | Mel P |
| Borbon arrival counts with volunteer | Aug.18.08 | RMC |
| Facilitate PWRCC vet visit to KIEBC | Aug. 19.08 | SS, DA |
| Application for transport permit, Narra | Aug. 19.08 | IR |
| Finalization of PAMB Res. 2003-02 & 03 and other inputs for RIWS 9th PAMB Regular Meeting | Aug. 19.08 | JMT, IDLW |
| Facilitation of PWRCC Director visit at KIEBC | Aug. 19.08 | SHD |
| Meeting with Accountant | Aug. 19.08 | IDLW |
| Buffer zone proposal and PFTCP report submitted. Calamianes concept proposal | Aug. 20.08 | SS |
| IEC at Princess Urduja Elementary and High School, Narra | Aug. 20.08 | IR |
| FGD at So. Batas, Barangay Bohol, Dumaran | Aug. 20.08 | MP |
| Planning for 4th Philippine Bird Festival | Aug. 20-22.08 | JMT, IDLW |
| Car repair | Aug. 20.08 | IDLW |
| Inspection KIEBC, turtle treatment, aviary assessment | Aug. 21.08 | SHD, SS, IDLW, DA |
| Validation of PA boundaries and kaingin areas | Aug. 21-22.08 | MP |
| Meeting with IDW (IEC schedules and Rizal project status) | Aug.21.08 | RMC |
| Inventory of office and boat equipments | Aug. 22.08 | IR |
| Preparation for Calamianes area coordinator. Prep for turtle histopathology. Pangolin MOA drafted | Aug. 22.08 | SS |
| Finishing (smoothing) of quarantine cement flooring | Aug. 22-27.08 | DA |
| Revisions of Bird festival tour package to RIWS | Aug.23.08 | RMC, IDLW |
| Radio guesting ELAC re Pandanan survey | Aug. 23.08 | IDLW |
| Mapping of recent cockatoo sightings in Narra | Aug.25.08 | RMC |
| Meeting with DYSP | Aug. 25.08 | IDLW |
| Mapping of cockatoo general dispersal route in Mainland, Narra | Aug. 26.08 | JMT |
| Radio guesting at DYSP program | Aug. 26.08 | IDLW |
| Quarterly growth monitoring of turtles | Aug. 26.-27.08 | DA |
| Preparation for RIWS 9th PAMB Meeting | Aug. 26-29.08 | JMT, IR |
| Prep. for Calamianes project | Aug. 26.08 | SS |
| Facilitate installation/electrification at KIEBC | Aug. 27-29.08 | SHD |
| Cockatoo observation at Lagan Roost Area | Aug. 27.08 | MP, Mel P |
| PCCP progress report | Aug. 27.08 | SS |
| Preparation for 4th Philippine Bird Festival | Aug. 27-29.08 | JMT, IDLW |
| Pangolin MOA. Dumaran PA profile. Writing of herp paper CMRPA | Aug. 28.08 | SS |
| Phenological monitoring | Aug. 28-30.08 | MP |
| Final preparations with Calamian area coordinator | Aug. 29.08 | SS, IG |
| Staff meeting | Aug. 29.08 | IDLW, SS, JMT, SHD, RC, MP, IR |
| Maintenance and operation of KEEC and library | Aug. 01-31.08 | Mel P |
| Overseeing construction, maintenance and landscaping at KIEBC | Aug. 01-31.08 | SHD, MB, IR |
| Consolidation and writing of reports | Aug. 01-31.08 | SHD, JMT, IR, RMC |
| Consolidation of cockatoo arrivals, mainland counts and verification of recent cockatoo sightings in Narra | Aug.01-31,08 | RMC, SHD |
| Regular maintenance of turtles and enclosures | Aug. 01.-31.08 | DA |
| Financial report and PTPR writing | Aug. 08 | IDLW |
| Program operations and management | May - Aug. 08 | IDLW, SS |

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ANNEXES

Annex 1

CLINICAL SECTION

Palawan Wildlife Rescue and Conservation Center
Puerto Princesa City, Palawan

NECROPSY REPORT

| | |
|---|-------------------------|
| Species: Philippine Cockatoo | ID No. : DENR 07-0013 |
| Scientific Name: <i>Cacatua hematuropygia</i> | Age: Juvenile/ Yearling |
| Mortality Date: May 12, 2008 | Sex: Male |
| Necropsy Date: May 12, 2008 | |

CASE HISTORY:

April 28, 2008 – It was reported that an injured wild Philippine Cockatoo was rescued at Narra. There is a complete fracture on the right wing, the bones were exposed piercing through the skin and the wing is drooping. Based on the nature of the wound, it is alleged that it is caused by slingshot. Hemostan ® was applied on the wound to stop the bleeding and povidone-iodine was used to disinfect the wound. It was advised to place a splint following the contour of the wing to stabilize the fracture and prevent further injury. It was fed with Cerelac ®.

April 29, 2008 – The bird is alert and was observed to be feeding well with malunggay seeds. The splint was removed to examine the wound. The fractured bone (metacarpus) was all set back to its normal location though it is hard to determine through palpation if it is aligned because the muscles around the area are swollen. A new splint was placed and the wing feathers posterior to the injury was taped. The breast muscle is also swollen. Diprosone ® ointment was applied on the swollen breast muscle to reduce the swelling.

May 3, 2008 – It was reported that the bird bit off the splint and the gauze used to pad the splint. It was taken off but the wing feathers are kept taped so as not to put weight on the fracture. Diprosone ® ointment was applied on the breast muscle. The bird is eating well. Bird weighs 340 grams.

May 10, 2008 – The keel bone is prominent when palpated. The fractured bone is exposed and the fragments are not apposed. There is an evidence of granulation tissue formation which indicates healing. However, a large portion of tissue surrounding the wound is necrotic (dead) particularly those posterior to the fracture which suggests that blood supply into the area is severed. The wing feathers are taped again. Bird weighs 270 grams. It was able to crack malunggay pod and ate the seeds. The bird is alert and active throughout the course of examination and observation.

May 11, 2008 – It was reported that the bird has difficulty in using its leg and seems like having muscle cramps. In late afternoon, it was reported that the bird is weak not being able

to crack the pods of malunggay and the body seems to be “numb” while the tail feathers are spread out like a fan. The claws (digits) are also closed. It was suggested to place the bird in a small cage inside a building where there is no draft and heat could be supplemented. It was also advised to feed with Cerelac ® and if available add dextrose powder on it. The bird died about 6:20 the next morning, 12 May 2008.

GROSS FINDINGS

The bird has fair body condition, the keel bone is prominent. The right metacarpus is broken and part of it is exposed. The metacarpal bone fragments are not apposed. The tissue surrounding the area has dried up. The size of the right and left breast muscles is symmetrical. The vent area is stained with feces and urates. Except for one malunggay seed (not cracked), the crop of the bird is empty. There is partially digested food in the gizzard. The serosal vessels of the gizzard and entire intestine are congested. Presence of green, semi-solid intestinal content.

REMARKS

Except for the fracture, there is no apparent gross lesion observed. The absence of feed in the crop indicates that the bird has not fed several hours before death which has also been the observation of the keeper. The observations of the keeper prior to death of the bird (difficulty in using the leg, numbness) suggest paresis if not paralysis. One possible cause of this is hypoglycemia or low blood glucose. The bird is losing weight several days prior to death. This may mean that the feed that is actually taken by the bird is not enough for its body maintenance. Another possible cause would be infection. The open wound may have been an entry point for infectious agent. Only topical antiseptic is applied on the wound. Systemic antibiotics is not given because this may encourage growth of other infectious agent such as fungus and also alter the normal bacterial flora of the bird. Even though there is no macroscopic signs of infection the possibility should not be discounted. Furthermore, it is also important to note that this is a wild bird held captive. The stress of injury, capture, handling and the new environment most likely contribute to aggravate its condition that eventually leads to its death.

JOANNE MAE G. JUSTO, DVM

Head, Clinical Section

License No. 0005250

Annex 2**RINGING DATA, BREEDING SEASON 2008**

PHILIPPINE COCKATOO CONSERVATION PROGRAM

KATALA FOUNDATION

DUMARAN ISLAND

| NESTING TREE NO. | NO. OF HATCHLING BANDED | RING NO./COLOR | DATE OF RINGING | MEASUREMENT (cm) | | | WEIGHT (grams) | EYE COLOR | REMARKS |
|------------------|-------------------------|----------------|-----------------|------------------|------|--------------|----------------|-----------|--|
| | | | | WING | TAIL | TOTAL LENGTH | | | |
| 04 | 2 | DENR 0009-07 | May 18, 2008 | 14.6 | 3.4 | 24.0 | 290 | -Black | Healthy, clean feathers, food on crop is full; |
| | | DENR 0010-07 | | 12 | 3.4 | 21.3 | 270 | Brownish | Healthy, clean feathers, ½ food on crop; |

RANSANG, RIZAL, PALAWAN

| NESTING TREE NO. | NO. OF HATCHLING BANDED | RING NO./COLOR | DATE OF RINGING | MEASUREMENT (cm) | | | WEIGHT (grams) | EYE COLOR | REMARKS |
|------------------|-------------------------|----------------|-----------------|------------------|------|--------------|----------------|------------------|--|
| | | | | WING | TAIL | TOTAL LENGTH | | | |
| | 2 | DENR 0056 | May 18, 2008 | 130 | 35 | 230 | 300 | Grayish to black | No food on crop, almost complete feathers, |
| | | DENR 0057 | | 172 | 55 | 250 | 309 | Grayish to black | Few food on crop with complete feathers, health and active |

RASA ISLAND

| NEST TREE NO. | HATCHLING BANDED | RING NO./ALL GREEN DENR -08 | DATE OF RINGING | MEASUREMENTS (cm) | | | WEIGHT (grams) | EYE COLOR | REMARKS |
|---------------|------------------|-----------------------------|-----------------|-------------------|-------------|---------------|----------------|-----------|---|
| | | | | Wing length | Tail length | Tot.al length | | | |
| 41 | 3 | DENR - 0001 | 04/22/08 | 11.8 | 0.8 | 21.0 | 307 | blackish | Almost full, seeds healthy, feathers just open & no mites. |
| | | DENR - 0002 | | 11.2 | 0.5 | 20.5 | 289 | blackish | Healthy, crop half granular, feathers open, no mites. |
| | | DENR - 0003 | 05/22/08 | 14.9 | 4.8 | 24.5 | 260 | blackish | Full crop, matchsticks feathers, no tail yet, legs ok & doesn't look like later hatchling.No banding, still young.. |
| 36 | 3 | DENR - 0004 | 04/24/08 | | 6.9 | 28.5 | 306 | blackish | Few food on crop, healthy, near to fledge, no mites |
| | | DENR - 0005 | | | 7.5 | 29.5 | 312 | blackish | Few food on crop, healthy, near to fledge, no mites |
| | | DENR - 0006 | | | 3.0 | 23.5 | 297 | blackish | Half food on crop, healthy, no mites & bigger gap with 2 older hatchlings. |
| 2 | 1 | DENR - 0007 | 04/28/08 | 1.7 | 6.9 | 28.0 | 332 | blackish | Few food on crop, healthy. |
| 54 | 3 | DENR - 0008 | 04/28/08 | 1.5 | 6.0 | 23.0 | 312 | blackish | No food, healthy, wounded-treated by Betadine. |
| | | DENR - 0009 | | 1.4 | 5.0 | 23.0 | 301 | blackish | Full crops, healthy, wounded - treated by Betadine |
| | | DENR - 0010 | | 1.2 | 3.2 | 21.5 | 317 | blackish | No food on crop, healthy & no mites. |
| 21 | 3 | DENR - 0011 | 05/02/08 | 14.0 | 8.5 | 22.5 | 317 | brownish | Few food on crop, healthy & no mites. |
| | | DENR - 0012 | | 12.4 | 9.5 | 22.4 | 304 | brownish | Few food on crop, healthy, no mites. |
| | | DENR - 0013 | | 11.5 | 6.3 | 20.3 | 332 | blackish | Few food on crop, healthy, no mites. |
| 28 | 3 | DENR - 0014 | 05/02/08 | 14.2 | 3.0 | 24.0 | 302 | blackish | Few food on crop, healthy, no mites. |
| | | DENR - 0015 | | 13.4 | 2.0 | 21.5 | 312 | brownish | Few food on crop, healthy, no mites. |
| | | DENR - 0016 | | 12.5 | 1.1 | 21.5 | 347 | brownish | Half food on crop, healthy, no mites. |
| 39 | 1 | DENR - 0017 | 05/02/08 | 12.5 | 1.5 | 22.3 | 267 | blackish | Few food on crop, healthy, no mites. |
| 33 | 2 | DENR - 0018 | 05/02/08 | 15.2 | 4.5 | 26.5 | 357 | brownish | Few food on crop, healthy , no mites. |
| | | DENR - 0019 | | 15.1 | 3.5 | 24.5 | 355 | brownish | Few food on crop, healthy, no mites. |
| 13 | 2 | DENR - 0020 | 05/06/08 | 17.0 | 6.5 | 28.5 | 278 | brownish | Few food, healthy, no mites. |
| | | DENR - 0021 | | 17.8 | 6.5 | 27.3 | 310 | blackish | Few food, healthy, no mites. |
| 53 | 3 | DENR - 0023 | 05/06/08 | 17.3 | 6.5 | 27.0 | 310 | brownish | Healthy no mites. |
| | | DENR - 0024 | | 17.0 | 6.1 | 26.5 | 308 | brownish | Few food, healthy and no mites. |
| | | DENR - 0025 | | 15.0 | 4.4 | 26.5 | 314 | brownish | Few food on crop, healthy & no mites. |
| 7 | 3 | DENR - 0026 | 05/06/08 | 15.0 | 2.8 | 26.2 | 278 | brownish | Half food on crop, healthy, no mites |
| | | DENR - 0027 | | 15.0 | 3.4 | 24.3 | 273 | blackish | Full food, healthy and no mites |
| | | DENR - 0028 | | 12.5 | 1.8 | 21.5 | 270 | brownish | Full food, healthy and no mites |

| | | | | | | | | | |
|----|---|--------------|----------|------|-----|------|-----|----------|--|
| 16 | 1 | DENR. - 0022 | 05/07/08 | 18.3 | 7.8 | 28.3 | 295 | brownish | No food on crop, healthy, no mites, with complete feathers |
| 38 | 3 | DENR - 0029 | 05/07/08 | 16.5 | 6.5 | 26.0 | 323 | brownish | Few food on crop, with complete feathers, rounded on right leg |
| | | DENR - 0030 | | 15.5 | 5.1 | 24.7 | 295 | brownish | Few food on crop, healthy and no mites. |
| | | DENR - 0031 | | 17.5 | 6.3 | 25.7 | 325 | blackish | No food on crop, complete feathers, good built and no mites. |
| 10 | 2 | DENR - 0032 | 05/09/08 | 14.2 | 2.5 | 22.5 | 318 | brownish | Few food, healthy |
| | | DENR - 0033 | | 12.2 | 1.0 | 21.2 | 325 | brownish | Few food, healthy |
| 9 | 3 | DENR - 0034 | 05/09/08 | 18.9 | 8.1 | 28.3 | 300 | blackish | Few food, with wound on the beak caused by rattan thorn during checking |
| | | DENR - 0035 | | 16.8 | 6.0 | 26.5 | 266 | brownish | Few food on crop, healthy, no mites, with wound on the tail portion, treated |
| | | DENR - 0036 | | 17.7 | 7.5 | 28.6 | 272 | blackish | Few food, healthy & no mites |
| 8 | 2 | DENR - 0037 | 05/09/08 | 19.5 | 8.1 | 27.8 | 325 | brownish | Few food, near to fledge, healthy |
| | | DENR - 0038 | | 18.3 | 7.4 | 26.5 | 312 | brownish | Vocalization is remarkably low, few food on crop |
| 45 | 3 | DENR - 0039 | 05/09/08 | 14.5 | 2.5 | 22.5 | 300 | brownish | Full food on crop, healthy |
| | | DENR - 0040 | | 14.0 | 1.4 | 22.0 | 295 | brownish | Full food on crop, healthy |
| | | DENR - 0041 | | 10.1 | | 20.0 | 240 | blackish | Full food on crop, healthy |
| 31 | 2 | DENR - 0043 | 05/11/08 | 18.5 | 7.2 | 28.0 | 335 | brownish | Half food on crop, healthy |
| | | DENR - 0045 | | 17.8 | 5.7 | 22.5 | 360 | brownish | Full food on crop, healthy |
| 56 | 3 | DENR - 0042 | 05/19/08 | 10.5 | 0.8 | 18.6 | 305 | brownish | Few food on crop, healthy |
| | | DENR - 0046 | | 11.5 | 0.9 | 20.1 | 290 | blackish | Few food on crop, healthy |
| | | DENR - 0047 | | 6.5 | | 15.5 | 180 | blackish | Full food on crop, healthy |
| 46 | 2 | DENR - 0048 | 01/19/00 | 17.5 | 6.1 | 26.3 | 345 | brownish | No food on crop, and no mites. |
| | | DENR - 0049 | | 17.5 | 6.0 | 27.3 | 315 | blackish | No food on crop and no mites. |
| 47 | 1 | DENR - 0050 | 05/22/08 | 17.8 | 7.5 | 27.5 | 315 | brownish | Healthy, no food on crop. |

Annex 3. Rapid Cockatoo Survey in Pandanan, southern Palawan, Philippines

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Please refer to separate file attached.