

**KATALA INSTITUTE FOR ECOLOGY
AND BIODIVERSITY CONSERVATION (KIEBC)**

Annual Report



Puerto Princesa City, Palawan, Philippines

December 2008

**KATALA INSTITUTE FOR ECOLOGY AND BIODIVERSITY CONSERVATION
(KIEBC)**

GENERAL INFORMATION

Name: KATALA Institute for Ecology and Biodiversity Conservation (KIEBC)

Location: Narra, Palawan, Philippines

Proponent: KATALA Foundation, Inc., (KFI)

National Highway, San Jose, Puerto Princesa City 5300

Palawan, Philippines

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Goal: Conservation of Palawan's biodiversity through establishment of an education, conservation and research institution in close vicinity to threatened target species and ecosystems.

Objectives:

- To serve as a venue for conservation education with local population, youth, national and international visitors as main target groups.
- To develop procedures for rescue, conservation breeding, habitat restoration and eventually re-introduction of selected highly threatened wild species of Palawan, like Philippine cockatoo and Philippine forest turtle.
- To establish an institution for research on applied ecology and biodiversity conservation, with focus on threatened species management, priority area conservation and restoration.

Time Frame: Preparatory Phase: August to November 2006

Operational Phase One: December 2006 to December 2008

Operational Phase Two: January 2009 to December 2010

Operational Phase Three: January 2011 to December 2012

Philippine Project Cooperators:

Department of Environment and Natural Resources (DENR)

Protected Areas and Wildlife Bureau (PAWB)

Palawan Wildlife Rescue and Conservation Center (PWRCC)

Palawan Council for Sustainable Development (PCSD)

Municipal Government of Narra, Palawan, Philippines

Concerned agencies and authorities

PROJECT DESCRIPTION

Rationale

The Palawan faunal region is of high species diversity, reminiscent of the close-by island of Borneo, but at the same time holds a high percentage of endemics, therefore resembling the Oceanic Philippines. Although still extensive areas of pristine forests, mangroves and coral reefs exist on Palawan, the rate of destruction, deterioration and fragmentation of these ecosystems is one of the highest in Southeast Asia.

Since 1998, KFI is implementing the Philippine Cockatoo Conservation Program (PCCP) in Narra, Palawan. It is one of the first community-based species conservation programs in the Philippines, and was deemed as one of the most successful of its kind. Within eight years, the population of the critically endangered Philippine cockatoo increased more than fourfold in a protected area specifically established for this species. Rasa Island is now the single-most important habitat for the Philippine cockatoo and is one of the most accessible wild places in the Philippines for a broader public to experience first-hand a rare and endemic species in its natural habitat.

In order to institutionalize this project and to broaden conservation efforts within southern Palawan, the establishment of the KATALA Institute for Ecology and Biodiversity Conservation (KIEBC) was envisioned by KFI and its local and international partners.

Project Location

The project site is located in Barangay Antipuluan, Narra, Palawan. It is situated about 1.5 km northeast of the Narra town proper in the coastal plain, only about 200 m away from the National Highway. Here the Katala Institute for Ecology and Biodiversity Conservation (KIEBC) will be established. The site encompasses a total land area of 2.18 ha donated by the municipal government of Narra. The area is surrounded by pastures and paddy fields, with the Victoria Range as spectacular backdrop.

Project Goal and Objectives

The goal of the KATALA Institute for Ecology and Biodiversity Conservation (KIEBC) can be summarized as follows:

Conservation of Palawan's biodiversity through establishment of an education, conservation and research institution in close vicinity to threatened target species and ecosystems.

Objective 1: To serve as a venue for conservation education with local population, youth, national and international visitors as target groups

Objective 2: To develop procedures for rescue, conservation breeding, habitat restoration and eventually re-introduction of selected highly threatened wild species of Palawan

Objective 3: To establish an institution for research on applied ecology and biodiversity conservation

Features of the KIEBC Facility

The area will be landscaped through excavation of ephemeral ponds. These types of wetlands once were typical for the coastal plain, before the onset of intensive rice cultivation. Excavated material will be used to backfill built-up areas, also in order to avoid flooding during the rainy

season. Landscaping will include reconstruction of vegetation formations typical for the area, like lowland rainforest, ultramafic forest, wetland vegetation, which will give the area a park-like appearance (Fig. 1).

About one third of the area will be occupied by parking lot, arboretum and a conservation education center with exhibit, which is openly accessible during day-time. Almost two-thirds of the area will be open for the public through guided tours and eventually will accommodate enclosures for conservation breeding of selected species. About 2000m² will not be open to the public and will comprise a garden for growing feeds for the animals, 'off-show' enclosures and quarantine, as well as the administration building (see red rectangular in Fig. 1).

The drafted plan with the location of the different project components (Fig. 1) is not to scale but provides an overview of the relative proportions of the different areas. The following components are envisioned as part of the project. The sequence of listing is in line with the legend of Figure 1.

- 1. Ephemeral pond** (about 5000m²) – this area will serve as a habitat for aquatic species that are endemic to Palawan which may include the Philippine discoglossid frog (*Barbourula busuangensis*), the Palawan horned frog (*Megophrys ligayae*) and fresh water fishes (*Puntius* spp., *Hito* spp.).
- 2. & 4. Aviaries** (about 1000m²) – these are allocated for endemic birds such as the Palawan hornbill (*Anthracoceros marchei*), the Philippine cockatoo (*Cacatua haematuropygia*), Blue-headed racquet-tail (*Prioniturus platenae*), and Blue-naped parrot (*Tanygnathus lucionensis*).
- 3 & 6. Mammals** (about 3000m²) – specific areas for each endemic species will be allocated in the project site such as for the Palawan pangolin (*Manis culionensis*), Palawan flying fox (*Acerodon leucotis*), Balabac mouse-deer (*Tragululus nigricans*), and Palawan porcupine (*Thecurus pumilus*).
- 5. Garden** (about 600m²) - This will be considered as the source of feeds for the different species in the center.
- 7. Turtle pond** (about 500m²) – this will showcase the endemic Philippine forest turtle (*Siebenrockiella leytensis*) and other freshwater turtles.
- 8. Administration and quarantine area** (about 2000m²) – this will cater all transactions of KIEBC and also serve as a data bank for baseline information generated. Likewise, the quarantine area will serve as the entry point and disinfectant for the different animal species to be introduced in the center.
- 9. Ultramafic forest** (about 2000m²) – this area is a demonstration of a rare forest type. It is found in areas with dark-colored soil that contains a high level of heavy metal compounds.
- 10. Conservation Education Center** (about 500m²) – this will be the area for training and center for information dissemination of all the knowledge products developed.
- 11. Arboretum** (about 2000m²) – this area will showcase the endemic tree species of Palawan, which are grown based on the concept of rainforestation farming.
- 12. Parking lot** (about 500m²) – parking area for staff and visitors of the center.

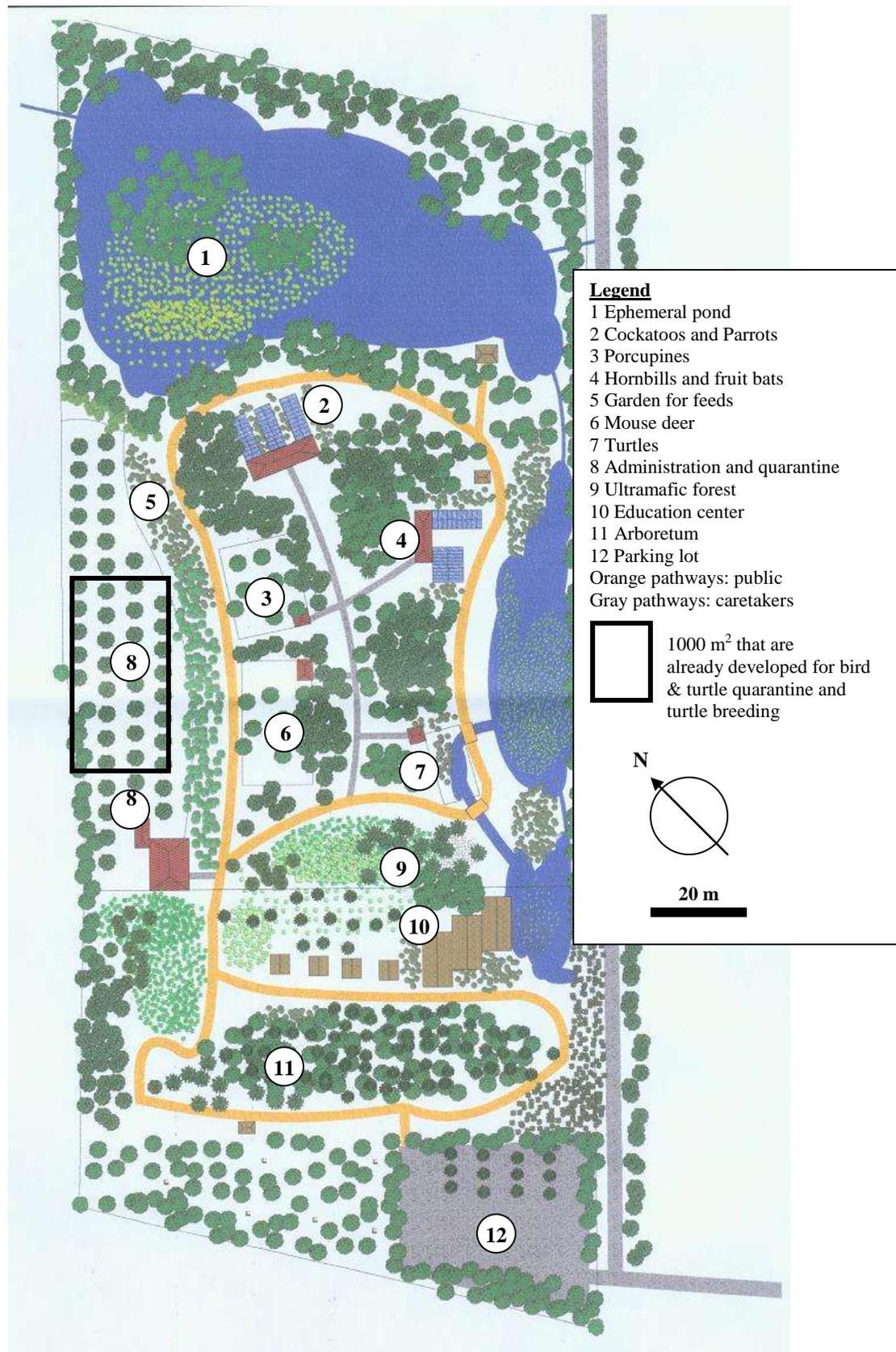


Figure 1: Draft plan of the Katala Institute for Ecology and Biodiversity Conservation.

Description of Project Phases

Preparatory Phase: August to November 2006

- Proposals for funding of the different components/phases of the project.
- Rehabilitation of access road.
- Landscaping through excavation of ephemeral ponds.
- Backfilling for built-up areas to avoid flooding during the rainy season.
- Establishment of plant nursery.
- Planting with mainly indigenous tree species.

Operational Phase

Activities during the operational phase are limited to the three main objectives of KIEBC. The operational phase includes construction of the facilities. Constructions and operations are divided into three phases the division of which is in line with the working plan of Katala Foundation Inc. and the possible acquisition of funding:

Phase I: December 2006 to December 2008

Phase II: January 2009 to December 2010

Phase III: January 2011 to December 2012

Phase I focuses on the establishment of facilities for the captive management of Philippine freshwater turtles, and rescued Philippine cockatoos from Rasa Island.

Phase II and III will focus on Conservation Education and Research.

With the Conservation Education building in place it is possible to cater for two groups of up to 25 participants in weeklong courses (e.g. ecosystem exposures), which would give the center a capacity of 600 in-house students per year. Until now 150 registered guests per year are visiting Rasa, with increasing tendency. The visitor/education center will be open during daytime without entrance fee. The animal enclosures are only accessible through guided tours.

Katala Foundation receives requests for cooperation of about 20 students (BS and MS) yearly, of which roughly half are foreigners. So far, most of these had to be turned down in the past, since they involved activities during the breeding season, where access to Rasa is restricted. With mores species being involved and an existing infrastructure, 10 to 15 students or researchers could be accommodated.

Other local or foreign visitors will arrive in a common visitors' parking area, and make their way to the training and viewing areas by foot. Once inside, they will pay an entrance fee (except residents of Narra) that would allow them to use or interact with the training, conservation, and research facilities.

PROJECT STATUS AS OF DECEMBER 2008

In line with the different project phases of KIEBC the following activities were conducted between January and December 2008 (for earlier activities and reports please refer to www.philippinecockatoo.org):

- Dr. Roger Wilkinson from Chester Zoo conducted a project site monitoring visit on 21st to 23rd of April and joined the first banding schedule on Rasa Island. Productive discussions among wardens and management were undertaken.



Figure 2a and b: Discussions with Dr. Roger Wilkinson.

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



Figure 3a and b: Planning with Pavel Hospodarsky and Program Management.

- In 2008, two proposals were approved for implementation: one is for an enclosure of Palawan porcupine, and the other for aviaries for Philippine Cockatoos (one for public viewing and one for breeding). The construction of both was severely hampered by continuous rain and projects were extended to 2009.
- Major landscaping again was hampered by the continuous wet conditions and availability of

heavy equipment from the municipality.



Figure 4a and b: Flooding of “access road” and center itself.

- The IEC hut and birdwatcher’s view deck near the quarantine section were completed. Around it Malunggay tree cuttings were planted.



Figure 5a and b: IEC hut and bird watch tower.

- A pangolin *Manis culionensis* was turned over to KIEBC but later released back to the wild after stabilizing its health.



Figure 6: A Palawan Pangolin was turned over to KIEBC.

- A multi-partite monitoring team conducted its 1st quarterly monitoring at KIEBC, after which quarterly self-monitoring was conducted and submitted to DENR.
- Registration of trees planted around the premises was completed.
- Repairs of the caretaker's house, replacement of shades of outdoor enclosures, repair of water pump and establishment of temporary enclosures for sick turtles were completed.
- In addition to solar power, KIEBC was connected to the Palawan Electric Cooperative (PALECO) in late August 2008.



Figure 7a and b: Caretaker house in the back and outdoor enclosure with new shade in the front. Solar system (below) and electrical fuse box (top).

- The turtle caretaker and two wildlife wardens in charge of animals in KIEBC attended a zookeeper training organized by the Zookeeper Association of the Philippine from Sept 8-11, 2008. The attendance of our three participants was sponsored by Chester Zoo.



Figure 8: Group picture of participants to 4th Philippine Zookeeper Training Workshop.

- A proposal for perimeter fencing and access road was submitted to the Municipality of Narra in December.
- On Dec. 12, 2008 Katala Foundation, staff, wardens, local stakeholders and partners celebrated the successful implementation of 10 years Philippine Cockatoo Conservation Program.



Figure 9: KFI board, staff, wardens and volunteers during PCCP anniversary celebration.

- Philippine Cockatoo:
 - 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.
 - Manual excavations to backfill the site for the cockatoo aviary was completed.



Figure 10: Backfilled foundation for aviary.

- 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 by the KFI survey team who went to Pandanan in May. The hatchling is

stable, healthy and has been moved to a bigger enclosure to allow flight practice.



Figure 11a and b: Confiscated one-week old Katala hatchling and the same bird some six weeks later.

- “Blue” was observed feather plucking. We diversified the diet and enclosure furniture. The bird was regularly inspected by Dr. Glenn Rebong. On December 2, Dr. Rebong tried to put a collar on to prevent further plucking, but the bird was able to remove the collar within 5 minutes. Except for its naked breast the bird is stable and healthy.



Figure 12a and b: “Blue” with naked breast (left). Dr. Rebong putting a neck collar on the bird.

- “Violet” had lost and regained 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.
- Freshwater turtles:
 - Enrichment planting inside turtle enclosures was intensively done to provide shade thus protecting them from intense heat;



Figure 13: Trees, shrubs and grasses are now providing natural shade in enclosures.

- A series of turtle surveys was conducted in northern Palawan from January to April 2008;

- The plight of the Philippine pond turtle was featured on national TV on February 2008 with Dr. Schoppe as interviewee for the documentation. Turtles of KIEBC and PCCP efforts were featured as well.



Figure 14: PCCP Co-Manager was interviewed by GMA7 about the Philippine Pond Turtle.

- Manual excavation of three ponds of a sewage system near the quarantine section was completed. Canal systems and drainage were improved as well.



Figure 15: All landscaping and construction in the Center still has to be manually done since the lack of an access road denies heavy equipment to enter.

- 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 histo-

pathological tests were conducted as well.

- Large outdoor enclosures were subdivided to keep turtles in small groups or pairs to reduce aggression among adult males while at the same time facilitate mating.



Figure 16a and b: Wildlife wardens assisted in putting up subdivisions in the large outdoor enclosures.

- As of December 31, 2008 KIEBC holds 34 *Siebenrockiella leytensis*, 18 *Cuora amboinensis*, 11 *Cyclernys dentata*, and 1 *Dogania subplana*. Growth was monitored trice (May, August and November) in the reporting period.

ACKNOWLEDGEMENTS

KFI is indebted to the following individuals and organizations for their assistance and generous support to realize all these activities:

- Mayor Clarito D. Demaala Jr. and MENRO Rolando R. Tagyab, and the Sangguiniang Bayan of the Municipality of Narra.
- OIC Regional Director Reynaldo R. Villafuerte of DENR-EMB; Director Dr. Theresa Mundita S. Lim of DENR-PAWB; PENRO Juan C. dela Cruz, Priscilla L. Adriano and Vivian Soriano of DENR-PENRO; CENRO/PASu Fernando T. Tactay, EMS Mercy Almorfe, and Deputy PASu Emmanuel Alfaro of CENRO Narra.
- OIC Director Dr. Glenn Rebong of PWRCC.
- OIC Director Romeo Dorado PCSDS.
- The veterinaries Dr. Glenn G. Rebong and Dr. Joanne Mae G. Justo of PWRCC; Dr. Sonja Luz of Singapore Zoo; and Dr. Esteven Toledo, Dr. Nielson Donato, Dr. Emilia A. Lastica of PAWVI.
- To our sponsors and donors: Loro Parque Fundacion, North of England Zoological Society - Chester Zoo, Zoological Society for the Conservation of Species and Populations (ZGAP and CEPA), European Association of Zoos and Aquaria (EAZA) Shellshock Campaign, Turtle Conservation Fund (TCF) through EAZA-Shellshock Campaign.
- Officials and residents of Bgy. Antipuluan, Narra.
- Peter Widmann, Vice President KFI and consultant.
- To all staff, wardens and volunteers who help in the progress of KIEBC.

PERSONNEL INVOLVED

Indira Dayang Lacerna-Widmann and Dr. Sabine Schoppe – Program Managers, PCCP
Peter Widmann – KFI Vice-President
Janice M. Tupas – Administrative Officer, Education Officer, Pollution Control Officer
Siegfred H. Diaz – Field Operations Coordinator
Ivy Regodos – Field Administrative Assistant
Diverlie Acosta - Turtle Caretaker KIEBC
SDENRO Mario Batac - Assistant Turtle Caretaker
SDENRO Monico Beleg - Bird Caretaker / Asst. Zookeeper
SDENRO Loreto Alisto - Assistant Bird Caretaker
Rommel Cruz – Field Assistant

Affiliated Scientists:

- Glenn G. Rebong, DVM, OIC, Project Director, PWRCC
- Joanne Mae G. Justo, DVM, Head, Clinical Section, PWRCC
- Dr. Sonja Luz, Senior Veterinarian at Singapore Zoo
- Dr. Esteven Toledo, Dr. Nielson Donato, Dr. Emilia A. Lastica, PAWVI veterinaries
- Roger G. Dolorosa and Joie Matillano, Western Philippine University