

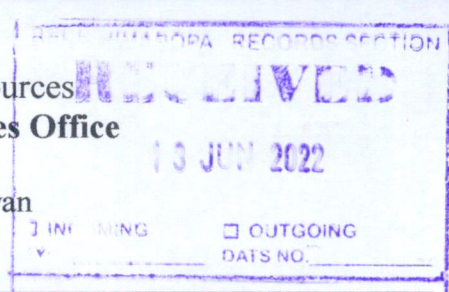


Republic of the Philippines  
Department of Environment and Natural Resources  
**Provincial Environment and Natural Resources Office**  
**MIMAROPA Region**

Bgy. Sta. Monica, Puerto Princesa City, Palawan

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Telfax No. (048) 433-5638 / (048) 433-5638



Region

June 01, 2022

**MEMORANDUM**

**FOR :** The Regional Executive Director  
DENR MIMAROPA  
1515 L&S Bldg., Roxas Blvd.  
Ermita, Manila

**FROM :** The Provincial Environment and  
Natural Resources Officer

**SUBJECT :** **PCCP PATROL REPORTS IN FOUR PROJECT SITES FOR THE  
MONTHS OF MARCH AND APRIL CY 2022**

Forwarded are copies of Katala Foundation Incorporated (KFI) patrol and monitoring reports on forest and biodiversity in four (4) Project Sites for the months of March and April CY 2022 to wit:

1. Dumarang Island Critical Habitat, Dumarang, Palawan;
2. Iwahig Prison and Penal Farm (IPPF), Puerto Princesa City;
3. Pandanan and Bugsuk, Balabac Palawan; and
4. Rasa Island Wildlife Sanctuary (RIWS), Narra, Palawan.

For information and record.



**FELIZARDO B. CAYATOC**

DENR-PALAWAN  
PENRO-RECORDS  
**RELEASED**  
By \_\_\_\_\_  
Date: **JUN 03 2022** CN **22-1395**

**KFI PATROL AND MONITORING REPORT ON  
FOREST AND BIODIVERSITY  
March 2022 SUMMARY  
Rasa Island Wildlife Sanctuary and its environs,  
Narra, Palawan**



**20**

**Bilang ng nagawang  
patrolya**



**0**

**Bilang ng illegal na  
kailangang aksyunan**



**180**

**Kabuuang kilometrong naabot  
ng patrolya**



**0**

**Bilang ng mga issues na  
nai-report sa PAMO**



**45**

**Kabuuang oras ng  
patrolya**



**0**

**Bilang ng naaresto**



**148**

**Pinakamataas na bilang sa  
tulugan ng Katala**



**37**

**Bilang ng ibang uri ng  
ibon na nakita**



**38**

**Pinakamataas na bilang  
ng Katala sa kinakainan**



**13**

**Uri ng halamang namumunga**



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

April 2022 SUMMARY

Rasa Island Wildlife Sanctuary and its environs,  
Narra, Palawan



**28**

Bilang ng nagawang  
patrolya



**0**

Bilang ng illegal na  
kailangang aksyunan



**109**

Kabuuang kilometrong naabot  
ng patrolya



**0**

Bilang ng mga issues na  
nai-report sa PAMO



**60**

Kabuuang oras ng  
patrolya



**0**

Bilang ng naaresto



**151**

Pinakamataas na bilang sa  
tulugan ng Katala



**35**

Bilang ng ibang uri ng  
ibon na nakita



**91**

Pinakamataas na bilang  
ng Katala sa kinakainan



**12**

Uri ng halamang namumunga



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## KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY RASA ISLAND WILDLIFE SANCTUARY

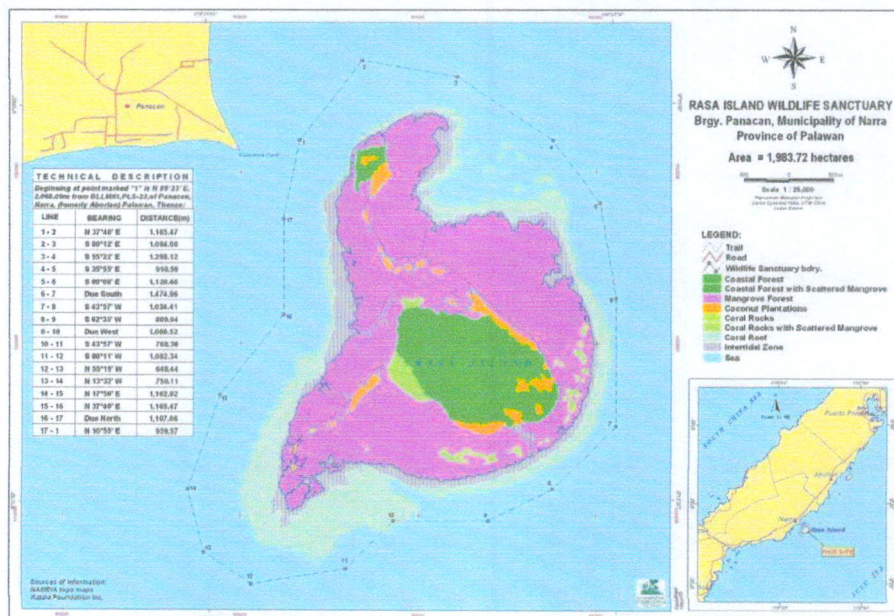
**MARCH-APRIL 2022**

Prepared by:

**Anna Rose Agullo, Mark Qunit, Peter Widmann and Indira D. L. Widmann**

### I. GENERAL DESCRIPTION OF THE CONSERVATION AREA, CONSERVATION OBJECTIVES, CONSERVATION TARGETS AND METHODS

Rasa is a small coral island of 8.34 km<sup>2</sup> land area situated in the Sulu Sea, just offshore of the Municipality of Narra, Palawan, Philippines (Fig. 1). About 1.75 km<sup>2</sup> are covered with coastal forest, mangrove (5.60 km<sup>2</sup>), cultivated areas (predominantly coconut; 0.39 km<sup>2</sup>), 0.60 km<sup>2</sup> are barren or sparsely vegetated sand and coral outcrops. In February 2006, the island became a Wildlife Sanctuary through Presidential Proclamation 1000 and since a Protected Area Management Board manages the Rasa Island Wildlife Sanctuary (RIWS). In 2008, RIWS was chosen as Top 13 Bird Watching Sites in the Philippines by the Department of Tourism.



**Figure 1.** Landuse map of Rasa Island Wildlife Sanctuary in Narra, Palawan, Philippines

The island is the pilot site of the Philippine Cockatoo Conservation Program since 1998. Due to intensive poaching, only 23-25 Philippine cockatoos were left on the island then. Key component of this project site is the warden scheme which involves ex-poachers as wildlife wardens whose main task is to patrol and protect the wildlife in particular the Philippine Cockatoo during and outside its breeding season. This scheme has proven to be efficient and lead to the dramatic recovery of the Philippine Cockatoo population to nearly 400 individuals as of to date. This makes RIWS the most important population of the species in the wild!



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 2019), considering the small size of Rasa. Noteworthy among the 112 recorded bird species are Red-headed Flameback *Chrysocolaptes erythrocephalus* (EN), Grey Imperial-pigeon *Ducula pickeringii* (VU) and Mantanani Scops-owl *Otus mantananensis* (NT).

### Conservation Objectives

1. Maintain the species diversity and function of ecosystems and species within Rasa Island Wildlife Sanctuary.
2. Identify and preserve priority sites for conservation and maintain their ecological functions.
3. Prevent or report to enforcing agencies illegal activities that compromise the integrity of the conservation area.

### Conservation Targets

1. To stabilize number of Philippine Cockatoo breeding pairs on Rasa Island and vicinity by 2024 (Baseline: average breeding pairs from 2019 to 2021: 33.0).
2. Conduct weekly patrol and permanent presence of wildlife wardens with daily reports during breeding season per year.
3. Conduct at least 12 school/community visits (with at least 20 percentage point increase in KAPP survey results for individual interventions) and one festival annually.
4. Rehabilitate at least one hectare per year through reforestation or enrichment planting within cockatoo foraging area.
5. Monitor and reduce threats in the area by 50% from 2022-2024; if any.

### Methods

Deputised wardens patrol by foot or by boat monthly within site. Patrol members use a technology-based system to register all observations (threats, status and wildlife data) in the android and transferred to a smart application to generate report (Critchlow et al., 2017; Teacher et al., 2013). Species to be monitored are based on their red-list status and their value as bioindicators (IUCN, 2019). Ease of identification in the field was considered as well. The maps are generated and analyzed through QGIS/ArcGIS. Patrols are coordinated with the concerned barangay and protected area office wherever it applies.

## II. PATROL TEAM AND EFFORT

The patrol and monitoring team members are our wildlife wardens and mainland volunteers: **REYNALDO ALBELAR, LORETO ALISTO, BERNITO BASIO, EDWIN BATAC, MARIO BATAC, LUCITO DANGIS,** Veronica

Marcelo, Danilo Villaruz, Monico Beleg and Antonio Marcelo. Three teams of wardens covered **180 and 109kms for March and April** respectively of nest checking and wildlife monitoring around Rasa. Total of precipitation in March 2022: **263mm** on Rasa, **405mm** on mainland while in April 2022: **151mm** on Rasa, **241.5mm** on mainland.

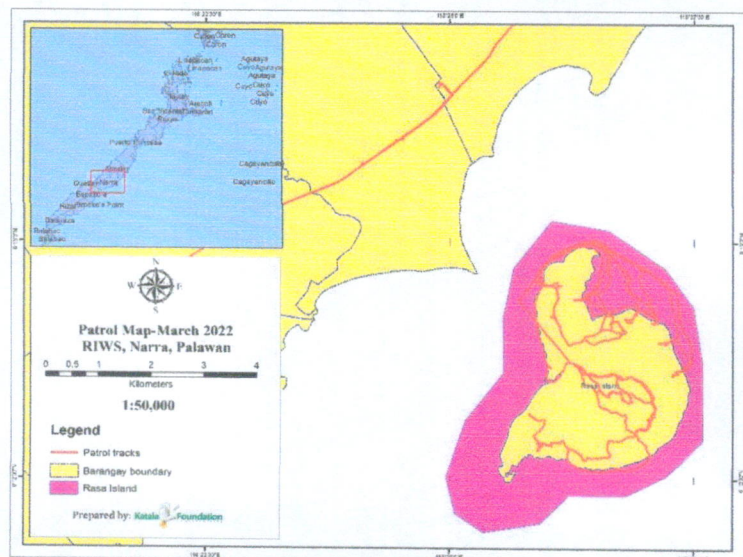


Figure 2. Patrol tracks in red marks in March 2022



In March, all active nests were visited including two potential nest trees. On Mar. 7, Reynaldo and Lucito noted one cockatoo on nest hole of dead Gindaon then went outside. The Gatasan exhibits more signs of occupation. The first cockatoo eggs on Rasa were recorded this month. As of March 26, we recorded 55 eggs from 30 occupied nest trees. Seven camera traps were randomly installed around Rasa. Data loggers were also checked regularly. On Mar. 9, Lucito saw cockatoo feathers on ground around a nest. He suspected it was attacked and dragged somewhere by an osprey.



**Figure 3.** Mario and Bernito monitor cockatoo nest trees on Rasa (top photos). Mark and Mario check on status of eggs and hatchlings through wifi-enabled endoscope (lower left) while Bernito puts the cable wire with lens inside the nest hole (lower right) ©KFI

In April, from two-day interval of nest checking, the teams shift to one-day interval especially now that rain is getting more frequent. Mites were observed on hatchlings on one nest on southeast Rasa. Though infestation was not severe, we treated it with cock shampoo immediately. The hatchlings with treated mites were checked the day after and exhibited no mites and was good health status. Mites were collected as well as the substrates of nest trees with hatchlings for further studies. Due to deep nest chambers on Rasa, an endoscope is used for detection of eggs and hatchlings.

### III. PATROL OBSERVATIONS

#### A. WILDLIFE OBSERVATIONS

First cockatoo eggs on Rasa were noted in Mar. 7. The highest count of cockatoo around nest trees particularly on coastal forest were recorded with six individuals. Sub-adult cockatoos were also observed with adult ones. 75 nest trees and Gatasan nest tree were visited in April 2022.



Out of these, 36 nest trees were occupied (incl Gatasan). Gatasan nest tree in coastal area is occupied with one egg on Apr. 1 though it failed. The egg was retrieved on Apr. 29. As of April 29, we recorded a total of 66 eggs on Rasa where 30 of which hatched. 17 eggs and 2 hatchlings were unsuccessful this month. 19 remaining eggs are still being monitored. Eggs are still expected on next checking schedules. Seven individuals were the highest count around nest trees during our scheduled visits and monitoring.

**148 and 151 individuals** were the highest counts at the traditional roost site for March and April respectively. In both months cockatoos were observed sleeping in the vicinity of the nest trees. On the other hand, no roosting cockatoos was recorded at Borbon during synchronized counting. Veronica counted **38 individuals** at Borbon on Mar. 17, flying to mainland at 6:25-8:40pm to forage. In one of our time counts in Mar. 3, six individuals were observed crossing to mainland from 6-10:00am. In the same month last year, less cockatoos were also observed crossing to forage. On Mar. 11, Peter saw five individuals crossing Malatgao bridge at 4:28pm. Veronica counted **91 individuals** flying back to Rasa from 7:22-8:35am on Apr. 29. Likewise, the highest count at Marcelo area was also noted in the same date with 24ind. Cockatoos were observed foraging on Katala lot beside Marcelo's residence and around her stations. During our timed count on Apr. 26, 55ind crossed from Rasa to mainland (due Borbon and Antipuluan) from 5:59-8:40am while 38ind flew back to Rasa from 7:10-8:30am. Less cockatoos were still observed crossing in the afternoon. On Apr. 18, 3ind could not go back to Rasa due to strong wind at 6:15pm. It stayed on coconut trees at Borbon instead. Earliest cockatoos' flight to mainland was at 5:51am while the latest flight to Rasa was 6:15pm recorded at Borbon station

This month, rain was more frequent than in previous months. 19inds were the highest count foraging on Marcelo area in Mar. 17 while no individual visited or foraged in the same area last year. This month, abundant food was observed on Rasa. Earliest cockatoos' flight to mainland was at 6:20am while the latest flight to Rasa was 6:22pm recorded at Borbon station.



**Figure 4.** Cockatoos forage on Malunggay at Malinao, Narra on Mar. 4 (left) and Mar. 23 (right)

Beside the Philippine Cockatoo other recorded species this month were Nicobar Pigeon, Blue-headed Racquet-tail (BHRT), Red-headed Flameback, Tabon Scrubfowl, Palawan Flowerpecker/ Tit, Green Imperial-Pigeon, White-bellied Sea-eagle, Egret sp., Pied Imperial-Pigeon, Common Koel, Great-billed Heron, Common Tern, Western Osprey, Dollarbird, Blue-Paradise Flycatcher/ Black-naped Monarch, Zebra Dove, Asian Glossy Starling, White-collared Kingfisher, Greater Coucal, Sunbird sp., Large-tailed Night-jar, Rufous-tailed Tailor-bird, Pipit, Ashy Drongo, Emerald Dove, Reef Egret, Oriental Dwarf-kingfisher, Whimbrel, Rufous Night-heron, Stork-billed Kingfisher, White-vented Shama, Fruit-dove sp., Changeable Hawk-eagle, Mantanani Scops-owl, and Spotted Wood-owl. Monitor Lizard is frequently encountered on Rasa. Blue-naped Parrot was seen and once seen with four BHRT feeding on Mala-kalamansi near camp then flew due mangroves. On Mar. 24, Lucito observed it perching on nest tree then



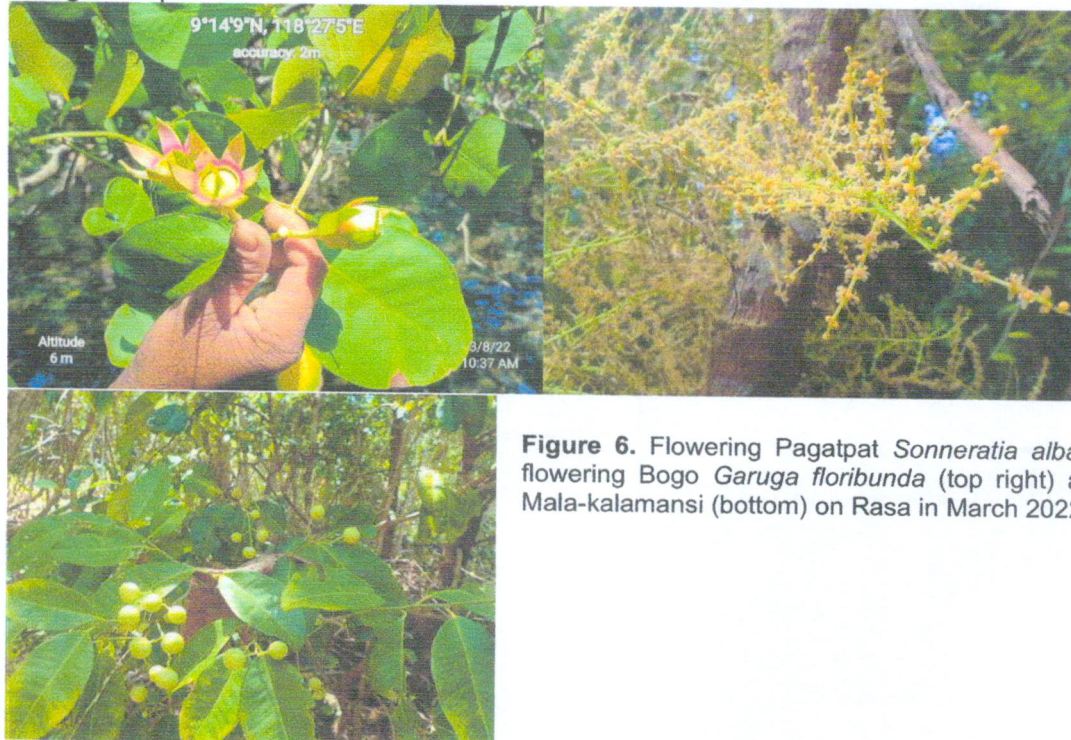
flew to Asinan area. Bernito heard Spotted Wood-owl squabbling near camp site. Mantanani Scops-owl was noted on Mar. 24 at Mario's area. On Mar. 8, 30ind of Pied Imperial-pigeon flew from Asinan to coastal forest. Bernito noted Large-tailed Night-jar with two eggs at R. Deig area on Mar. 27 (Fig. 5). Lucito noted two small bats came out from nest tree near camp on Mar. 25 while climbing on nest. On Apr. 3, Sikopsikop, a predator of smaller birds perched on branch of nest 54 then flew due nest 26. Reynaldo saw snake near campsite on Apr. 17



**Figure 5.** Two eggs of Large-tailed Night-jar noted Mar. 27 at 8:46am (left) and it was with parent at 10:27am (right)

#### **Vegetation assessment**

Greener vegetation is observed in March and April 2022 both on boundary and inner coastal forest of Rasa. Leaf litter is less dense. Fruiting trees and vines were Taluto, Ginlalid, Tulangpagi, Mala-kalamansi, Balete, Kasuy-kasoy, Gatasan, Balindadagat, Binunga, Dapdap, Bagalunga, Aring, Piagaw, *Rhizophora* sp. and other mangrove species. Likewise, flowering trees and vines were Taluto, Bogo, Dapdap, Aring, Pagatpat, *Rhizophora* sp. and other mangrove species.



**Figure 6.** Flowering Pagatpat *Sonneratia alba* (top left), flowering Bogo *Garuga floribunda* (top right) and fruiting Mala-kalamansi (bottom) on Rasa in March 2022



## B. THREAT OBSERVATION

No adverse human activities observed on Rasa during monitoring.

On Mar. 21, we visited the reported suspected dead cockatoo at Panacan and verified that it was not cockatoo based on its small (undersized even for cockatoo down feathers), white feathers (Fig. 4). We interviewed the community in barangay including Danny Villaruz's wife.



**Figure 7.** Visit on alleged dead cockatoo and verification on witnesses at Panacan, Narra; Small feathers are observed around the area ©KFI

## III. OTHER HIGHLIGHTS

Prior informed consents for the project Nature-based solutions for Tuas Watershed (Taritien River) in Narra, Palawan were secured after conducting presentations to Barangay councils of Poblacion, Antipuluan, Taritien and Elvita (Fig. 9). Mr. Jonas Arcilla, a geologist and professor from Palawan State University (PSU)-PPC together with MENRO Mr. Neil Varcas conducted ocular visit at Bgy. Taritien and Elvita on Apr. 9 as part of the said project.

**Figure 8.** Ocular visit with Mr. Arcilla and MENRO on Bgy. Taritien and Elvita at the foothills of mountain (left); Estuary at Bgy. Taritien was also visited (right) @KFI



Camera based-trapping in lowland forests within these target barangays was conducted in March to April. Focus group discussion and meetings with farmers were also organized (Fig. 9). We talked with a total of 72 farmers in nine sessions. Some of the participants were members of local vegetable growers and corn cluster groups, irrigators' association and employee of National Irrigation Administration (NIA). The meetings aimed to determine the essential support for the farmers to work both for conservation and for their increased income.

The challenges they encounter are high cost of farm inputs (e.g., expensive fertilizer, pesticides, insecticide, herbicides and diesel, labor cost, seed variety and quality, poor soil quality, post-



harvest facility, farm-to-market road, transportation and rice processing cost), low price of palay, lack of capital, pathogens, irrigation system, lack of government support, feeling of farming is not prioritized, flood, birds (e.g., maya and pigeons), and weather. Majority of the farmers in barangay Antipuluan, Poblacion, Elvita and Taritien engage in inorganic farming for rice, vegetable and corn production. Majority of the participants sell unprocessed inorganic rice (palay) to traders. Traders then process and package rice while giving only the net amount to farmers. The farmers' necessary trainings and supports are determined eventually after identifying benefits and barriers of organic farming with the participants. Majority of the participants consider organic farming though they perceive that they lack knowledge and experience.



**Figure 9.** Presentation on Nature-based solutions for Tuas watershed to Barangay Taritien council (left); FGD on perception of farmers on organic farming with Narra Organic Farmers' Association (right)

*Monitoring on coconut plantations on Rasa.* On Mar. 4, three persons gathered 300kgs of copra at Deig area for one week. On Mar. 6, six persons collected 1200kgs copra on Rasa in one week. On Mar. 10, three persons gathered 200kgs copra on Rasa in two days. On Mar. 26, two persons collected 350kgs of copra at Baltazar area for 10 days. On Apr. 1, two persons gathered 70kgs of copra at Deig area for three days while on Apr. 2 Edwin's brother was at his area gathering copra.

A microscope (right photo) was donated to the PCCP-KIEBC through UPLB College of Veterinary Medicine under Dr. Emilia Lastica to support its objectives especially on management of captive animals in Katala Institute at Bgy. Antipuluan, Narra.

Wardens work on extending roof of campsite (Fig. 10) and additional wood platform for herbarium specimen.

KFI wildlife wardens, volunteers and staff were trained on savings and creation of Katala savings club on Mar. 11 by Mr. Art Faburada, RARE personnel (Fig. 10).







**Figure 10.** Edwin paints GI for camp roof extension (left); Mr. Faburada discusses the benefits on joining the savings club (right)

A fiberglass boat of KFI with special funds from ZGAP is fabricated with the assistance of Mr. Antonio Gammad, Municipal Agriculturist of Narra (Fig. 11). This first fiberglass boat created by Narranons will help in promoting eco-friendly boat through conversion from wood-made hull to fiberglass hull of boats in the municipality. Lucito assisted on fabrication of outrigger of fiberglass boat.



**Figure 11.** Mold for fabrication of fiberglass boat (left); Mr. Gammad shows how floaters (styrofoam inside pet bottles) are piled in the boat that helps on achieving buoyancy of the boat (right)

In March, International Women's Day was commemorated through PCCP Fb page. Active women in wildlife conservation in Narra, Palawan who include fisherfolks, KFI-PCCP volunteers and staff expressed their valuable contributions in the subject.

### Visitors

On Mar. 31, Mr. George Tapan, a well-known photographer visited cockatoo roosting site to take footage for a coffee-table book that includes details on cockatoos and Rasa Island. On Apr. 1, a team headed by Ms. Jazz Ong interviewed Dr. Sabine Schoppe to help promote awareness on Philippine Freshwater Turtle species and other projects under KFI. On Apr. 8, Lutz Geissler and company visited Katala Institute (KI) at Bgy. Antipuluan, Narra.



#### IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN

Owners of lobster traps at Borbon, Panacan must be informed to not encroach inside Rasa boundary. Prescriptions for each zonation must be finalized and disseminated by PAO and with other PAMB members to encourage more active role in protection. Case filed against establishment of fish corral on Rasa must progress. Collection of fossilized Taklobo shells has been rampant even in other municipalities of Palawan hence intensive monitoring around Rasa at night is also encouraged.

#### V. ACKNOWLEDGEMENT

The PCCP acknowledges the key players on the ground: our wildlife wardens and mainland volunteers: REYNALDO ALBELAR, LORETO ALISTO, BERNITO BASIO, EDWIN BATAAC, MARIO BATAAC, LUCITO DANGIS, Veronica Marcelo, Danilo Villaruz, Monico Beleg and Antonio Marcelo.

Thank you very much to the LGU-Narra through Mayor Danao and staff, Vice Mayor Lumba, and the municipal council, department heads, barangay officials, and everyone in the LGU for their unrelenting support and appropriation per year for our wardens and volunteers. Also, we thank the Narra community for pursuing the cause of cockatoo conservation in Narra. We also thank the PAMO through former PASu Pablo Cruz for his leadership and for PASu Ma. Teresa V. Ayson for her kind attention.

We are grateful to KFI family and board members for their help, assistance and sharing expertise and ideas.

We are indebted to the following organizations and agencies for providing funds for this project:



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

March 2022 SUMMARY  
Pandanan and Bugsuk  
Balabac, Palawan



**37**

Bilang ng nagawang  
patrolya



**143.9**

Kabuuang kilometrong naabot  
ng patrolya



**43**

Kabuuang oras ng  
patrolya



Bilang ng illegal na  
kailangang aksyunan



**0**

Bilang ng nai-report sa KFI



**0**

Bilang ng naaresto



**54**

Pinakamataas na bilang  
sa tulugan ng Katala



**68**

Bilang ng cavity nesters



**14**

Bilang ng naitalang supply  
ng Pagkain ng Katala at  
ibang buhay-ilang



**0**

Nakuhang mga silo o patibong



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**KFI PATROL AND MONITORING REPORT ON  
FOREST AND BIODIVERSITY  
APRIL 2022 SUMMARY  
Pandanan and Bugsuk  
Balabac, Palawan**



**33**

Bilang ng nagawang patrolya



**105.03**

Kabuuang kilometrong naabot ng patrolya



**68**

Kabuuang oras ng patrolya



**4**

Bilang ng illegal na kailangang aksyunan



**0**

Bilang ng nai-report sa KFI



**0**

Bilang ng naaresto



**58**

Pinakamataas na bilang sa tulugan ng Katala



**168**

Bilang ng cavity nesters



**20**

Bilang ng naitalang supply ng Pagkain ng Katala at ibang buhay-ilang



**20**

Nakuhang mga silo o patibong



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## KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY PANDANAN AND BUGSUK ISLANDS, BALABAC

March - April 2022

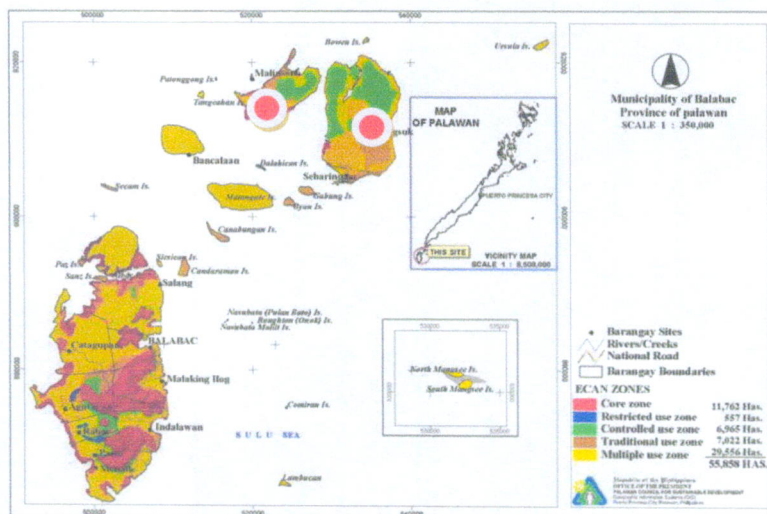
Prepared by:

Rene A. S. Antonio, Peter Widmann and Indira D. L. Widmann

### I. GENERAL DESCRIPTION OF THE CONSERVATION AREA, CONSERVATION OBJECTIVES, CONSERVATION TARGETS AND METHODS

Pandan and Bugsuk Islands belong to the north-easternmost municipality of Balabac in Palawan (Fig. 1). Coastal forests are dense and stock on flat limestone originating from elevated coral reefs. Large trees in the coastal forest are mostly deciduous and widely spaced due to water stress during the dry season. The understory is very dense with abundant vines. Emergent trees *Pometia pinnata*, *Dracontomelon dao*, *Koordersiodendron pinnatum*, *Intsia bijuga*, and *Ficus* spp. A narrow rim of beach forest with *Erythrina*, *Calophyllum* and *Barringtonia* is present. The dense coastal forest cover is as well protected because the large portion of the island is privately-owned and entries are monitored by security company guards. Extensive mangroves are thriving which mostly dominated by genus *Sonneratia* and *Rhizophora*. Mangrove forest play important role not only to its wildlife inhabitant but act as one of the main food sources for the critically endangered Philippine Cockatoo. Both islands have old growth *Sonneratia* that can sustain food to significant numbers of wild cockatoo population during its fruiting season.

Currently, 101 bird species have been recorded in Pandanan, Bugsuk and adjacent Malinsuno Island. Among these are six globally threatened and six near-threatened species (IUCN 2019). Of outstanding conservation concern are particularly the larger tree cavity nesters, like Palawan Hornbill, all three parrot species of Palawan, Philippine Cockatoo *Cacatua haematuropygia*, Blue-naped Parrot *Tanygnathus lucionensis* and Blue-headed Racquet-tail *Prioniturus platenae*, and other conservation relevant species like Grey Imperial-pigeons *Ducula pickeringii* and Mantanani Scops-owl *Otus mantananensis* (Widmann et al. 2008). The first and only record for the Philippines of a Fairy Pitta *Pitta nympha* comes from Malinsuno as a result of the conservation project. On the other hand Bugsuk Island also serves as one of the important habitat for the endemic Balabac Mousedeer *Tragulus nigricans*,



**Figure 1.** Location map of Pandanan and Bugsuk Island (red dots) in municipality of Balabac, Palawan (Map: PCSDS).



due to restricted access of locals and less presence of hunting, deer population thriving in significant numbers. Bugsuk Island is apparently the only place in the world where the highly threatened Balabac Mousedeer, Palawan Porcupine, Philippine Cockatoo and Palawan Hornbill co-exist in the same forest habitat in viable populations.

Both islands' marine ecosystem harbors several threatened marine turtle species. Portions locally declared as marine protected area remain as important breeding sites for grouper, wrasses and other high valued marine products.

### Conservation Objectives

1. Maintain the species diversity and function of ecosystems and species at Pandanan and Bugsuk Island.
2. Identify and preserve priority sites for conservation and maintain their ecological functions.
3. Prevent or report to enforcing agencies illegal activities that compromise the integrity of the conservation area.

### Conservation Targets

1. To increase number of Philippine Cockatoo breeding pairs on Pandanan/Bugsuk by at least 5% by 2024 (up from 23 and 10 from Pandanan and Bugsuk respectively in 2021).
2. Increase viable population of endangered and endemic target cavity-nesters by at least 3% by 2024 e.g. Palawan Hornbill (up from 15 breeding pairs in 2021), Blue-naped Parrot (up from 6 breeding pairs in 2021), in Pandanan and Bugsuk Islands from 2022-2024.
3. Reduce threats in the area by 50% from 2022-2024.

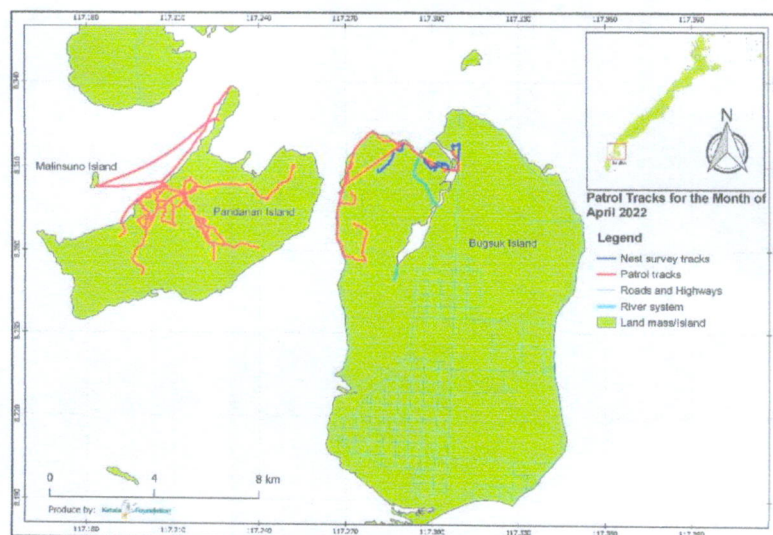
### Methods

Deputized wardens patrol by foot, by boat and by truck monthly within sites. Patrol members use a technology-based system to register all observations (threats, status and wildlife data) in the android and transferred to a smart application to generate report (Critchlow et al., 2017; Teacher et al., 2013). Species to be monitored are based on their red-list status and their value as bioindicators (IUCN 2022). Ease of identification in the field was considered as well. The maps are generated and analysed through QGIS. Patrols are coordinated with the concerned barangay, private land owner/company and protected area office wherever it applies.

## II. PATROL TEAM AND EFFORT

In March, a total of 30 regular patrols were conducted at Pandanan Island which covered a total distance of 127km while in Bugsuk Island monitoring visit was conducted in March 12-15, 2022 which covered 16.9km mostly on northwestern part only.

Patrol and monitoring at Pandanan Island covered the total distance of 85km in April. While in Bugsuk Island week-long monitoring 20.3km of routine nest checking and nest survey.



**Figure 2.** Patrol tracks at Pandanan island for this month of April 2022 (Map: KFI 2022).



### III. PATROL OBSERVATIONS

#### A. Wildlife observations

Seven target threatened bird species were recorded from March to April on Pandanan Island: Philippine Cockatoo, Palawan Hornbill, Blue-naped Parrot, Blue-headed Racquet tail, Hill mynah, Palawan scops Owl and Great slaty Woodpecker. We also noted the presence of a pair of Nicobar Pigeon (IUCN:near threatened) at northern forest of Pandanan during the early week of the month which were foraging on ground level during the field observation. Other bird species recorded this month were Green imperial Pigeon, Crested serpent Eagle, Asian Koel, Spot throated Woodpecker, Common emerald Dove, Tabon Scrubfowl, Hooded Pitta, Stork-billed Kingfisher and White-collared Kingfisher. Terrestrial mammals include Long tailed Macaque and Flying Squirrel. Records of migrant species also made for 74 individuals Grey-faced Buzzard and lone Osprey, heading northward during late afternoon of March 18, 2022.

Monitoring visit at Bugsuk island from March 12-15, 2022 and April 23 to 29, 2022 record the following wildlife species: Philippine Cockatoo, Palawan Hornbill, Blue-naped Parrot, Blue-headed Racquet tail, Great slaty Woodpecker, Tabon Scrubfowl, Stork-billed Kingfisher and Nicobar Pigeon. In terms of terrestrial mammal, we noted Palawan bearded Pig and Balabac Mousedeer. For marine species, we continuously record the presence of Salt water Crocodile (juvenile and adult) at Bugsuk Island, while significant numbers of juvenile to breeding Green sea turtles and Hawksbill turtles found in sea grass meadows of north western Pandanan.

#### B. Philippine Cockatoo and Palawan Hornbill nest monitoring

Complete nest checking and monitoring activity was conducted for 25 cockatoo nest trees in Pandanan island. This month we confirmed seven additional nests which are occupied bringing the total of 19 nests (12 nest as of March reporting) actively occupied on Pandanan. Cockatoo eggs were noted from these additional active nests and undergo incubation as of this period. Numbers of live young cockatoos also increased with total of 28 after complete verification and nest checking. Health assessment and banding of live young commenced in Pandanan this April with seven successfully banded by wildlife wardens and staff. Egg loss from five nests was found by our team during the routine nest checking, eight cockatoo eggs were declared spoiled or missing from these nests. Missing egg is mainly caused by predation of tree dwelling snake and competition by other occupants of nest holes.



**Figure 3.** Banded young cockatoos at Pandanan Island (left) and in Bugsuk Island (right). (Photos: RAntonio).



In Bugsuk island, four cockatoo nests remain active and occupied while additional new nest tree was discovered in northern part of the island as of April visit. A total of 12 live young cockatoos were banded by our team from these active nests. While mortality of three hatchlings was recorded from two nests probably due to inclement weather. Biometrics and assessment were conducted on each young while collection of blood sample to be used for DNA sexing and PBF (Psittacine beak and feather disease) was made on each banded young bird from both islands.



**Figure 4.** Routine nest checking and banding activity at Bugsuk Island (Right, Photos: RAntonio).

For Palawan Hornbill nests status, none as of yet of the fourteen nests are occupied although we observed continued preparations done like sealants and recent fecal matter was found and presence of possible occupant within the vicinity during the nest checking. Meanwhile, at Bugsuk Island two previously recorded nest holes are now active and occupied, female and young hornbills were confirmed inside. Discovery of three new nests in northern Bugsuk was made this visit, these three nests are also active and occupied (Fig. 4). In total, five nest tree are known active and occupied in Bugsuk with eight live young hornbills recorded.

For other cavity nesting birds, 10 new nests of Blue-naped parrot and four Hill Mynah nests were discovered in northern Bugsuk respectively. Most of these nests contain eggs and undergo incubation period.



**Figure 4.** Newly discovered hornbill nest tree in Bugsuk island, hosted by Amugis tree (Left). Forest tree seeds commonly found below the occupied and active nests of hornbills (Right, Photos: RAntonio).

### C. Philippine Cockatoo roost counts and food providing tree monitoring

Highest counts taken at the roost site were 54 and 58 while the lowest is 21 individuals for March and April respectively. Torrential rainfall during the 10th and 11th of April affects the counting activity of wildlife wardens in Malinsuno Island while cockatoos arrive in roost site shortly after dusk. At secondary roost site in Sebaring, 11 cockatoos were counted and recorded as the highest number in the area in March.



In terms of cockatoo and wildlife food source, we recorded up to 17 forest trees, two vines and a palm species: Aga, Akle, Amugis, Antipulo, Aloyaw, Badjang *Alocasia macrorrhizos*, Bago, Balinad, Balite *Ficus sp.*, Bayoso, Kamilet, Kaliyat vines, Limon-limon, Mainggit *Cananga odorata*, Magdita-dita, Magbaka-baka, Magnangka-nangka, Marapisa, Rangingi vines, Tarungtung, Se-ar and Pisa palm (Fig. 5).

In Sebaring, cockatoos reportedly continued to observe feeding at the fruits of Pagatpat *Sonneratia alba*, pods of *Moringa* and pods of Ipil-ipil tree.



**Figure 4.** Recorded food source of cockatoo, hornbill and other wildlife: pods of Balinad (left), fruit of Amugis (center) and fruit of Balite/Ficus (Right, Photos: RAntonio).

#### D. Community monitoring and threats observation

##### MARCH 2022

We reported to the barangay council five transients spotted in Pandanan this month. Three were from Narra, Palawan while two from Bataraza Palawan. Relative visitation and fishing activity are the two purposes mentioned by these respondents.

In terms of recorded threats, illegal cutting of forest trees using chainsaw by unknown locals was discovered and recorded within the sites of Kambangtuli, Arananan and Tagbinwan coastal forest. A total of eleven trees were cut from these sites. In Kambangtuli one Magloana tree was cut down using axe and later into sizes by using chainsaw from which two boat hulls were produced from this tree. The hull measures 3inch thick, 18 inch wide and 20feet in length. No local cutter noted during the discovery; confiscation was made on March 03, 2022 by wildlife wardens with assistance of Barangay Tanod, each hull was transferred to Barangay Captain Nestor M. Gabinete Jr property for proper custody (Fig. 5). Meanwhile, cut trees along Arananan were identified as follows: Ogayan (1), Anaan (1), Bayoso (1) and in Tagbinwan are Magloana (1), Amugis (1), Se-ar (1) and Mangupak (3). All generated lumbers were missing during the discovery only stumps left indicating the "cut and immediate extract" method used to avoid detection by patrollers. We also found last March 18, 2022 one identified cockatoo potential nest tree in Tagbiwan forest was probably intentionally cut by unknown locals (Fig. 6). Cockatoo nest preparation from this tree was recorded last February monitoring, search for the nest branch was made however it was severely damaged due to impact, no actual occupation yet noted. We surmise the tree was cut a week prior to the discovery and we further suspected that it was intentionally but so that patrols would not be done in the area anymore since no more cockatoo nest trees will be monitored and they can continue to destroy these valued coastal forests!





**Figure 5.** Confiscated boat hull from Kambangtuli forest, the two hull has an estimated value of Php. 20,000.00. Both hulls are under custody of Barangay council of Pandanan (Right, Photos: KFI 2022).



**Figure 6.** Cockatoo potential nest tree at Tagbinwan coastal forest intentionally cut by unknown locals. The tree was left untouched after it was cut (Photos: KFI 2022).

#### APRIL 2022

Three transients residing along Arananan coastal forest as of April 11, 2022 were recorded by our team. These three men were originally from Puerto Princesa City particular from Barangay Napsan and Luzviminda. These local identified themselves as Bernie Taglie, Bunso Taglie both from Luzviminda and Teddy Cayapas from Napsan. No proper identification or Barangay ID shown to monitoring team. Accordingly, a certain Mr. Randy Arellano enticed them to join him in making kaingin along Arananan. Names were listed for further notification to barangay council of their presence. Five new clearings were found in the vicinity, all clearing is situated inside "old kaingin site".

In terms of threats, one Mararango tree was found being cut by chainsaw inside the Dalahican-Aranan coastal forest. Cutting is made almost two weeks or so, all generated lumbers are already missing or hauled from site by allegedly a local cutter. Furthermore, line of ground snare



traps was discovered in northern Pandanan Island as of April 08, 2022. The snare trap is intended for ground dwellers like Bearded Pig and bird species like Tabon Scrubfowl and Nicobar Pigeon. A total of 20 snare traps were immediately dismantled by patrol team.



**Figure 7.** Monitoring of transient locals at Arananan (left) and ground traps in northern Pandanan (Right, Photos: KFI 2022).

#### E. Camera trap routine checking

Regular checking and card retrieval of deployed camera traps in Bugsuk was made last March 14, 2022. Footages captured by the camera trap revealed the presence of the following animals at the northwestern part of Bugsuk Island: Balabac Mousedeer (Fig.8), Palawan bearded Pig, Long-tailed Macaque, Civet Cat, Tabon Scrubfowl and Common emerald Dove. Installation of additional cam is suggested on northwestern part of Bugsuk Island.



**Figure 8.** Deer feeding activity; Balabac Mousedeer feeding of foliage's in front of camera traps (left) and passing pair of Palawan bearded Pig (female and male on far back (Right, Photos: KFI 2022).

Regular checking and card replacement of deployed camera trap in Bugsuk was made last April 25, 2022. Presence of the following animals and wildlife was continuously recorded in northern Bugsuk: Balabac Mousedeer, Palawan bearded Pig, Long-tailed Macaque, Tabon Scrubfowl and heard of Water Buffalo or wild Carabao.



#### **IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN**

Illegal logging and clearing activity are prevalent and persistent in Pandanan Island. Cutting of trees especially the nest providing trees indicate people are aware there are patrols done by wardens and in order to avoid these patrols be conducted in these areas they rather would cut potential nest trees and leave them untouched as an assertion of their powers over the law. While there is a need for intensive information campaign, less of these similar incidents would have had happened or could be averted if there is more conviction from law enforcing agencies to implement the law and act on reported incidences. While we put our wardens on the forefront, we appreciate if actions are taken more serious and cases are filed. Visibility would help as well. We have reported several confiscations in the past but no action.

Influx of non-island residents in Pandanan continued and some of these locals also engage in clearing activity during kaingin season. Information of recorded transient locals were forwarded to barangay council for proper monitoring.

#### **V. RECOMMENDATIONS**

A tighter law enforcement and monthly joint monitoring activities by concerned parties/agencies are deemed necessary to avert further forest destruction. Visibility of law enforcement agencies would greatly help.



## VI. ACKNOWLEDGEMENT

We are indebted to our wildlife wardens for their patience and work: Ismael S. Dela Cruz Jr., Deo E. Aplid and Ariel C. Omog. Likewise, we thank our escorts from SCAA, Philippine Army who restlessly secured us every monitoring visit. Thank you very much to the Jewelmer Corporation by providing the KFI team full assistance during every visit in Bugsuk island especially to Sir Jacques Christopher Branellec and Ms. Vianney Brossard. We also extend our appreciation to the Council members of Barangay Bugsuk, Council members of Barangay Pandanan and Local Government Unit of Balabac Municipality for making the conservation project more effective and successful.

We are grateful to KFI family and board members and project staff (J-Kris Gano) for their help, assistance and sharing expertise and ideas.

We are indebted and grateful for the support of the following organizations and agencies for supporting patrols and implementation of our work in Pandanan and Bugsuk Islands, Palawan (logos below):



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

## March 2022 SUMMARY Dumaran Island Critical Habitat Dumaran, Palawan



**15**

Bilang ng nagawang  
patrolya



**170.13**

Kabuuang kilometrong naabot ng  
patrolya



**27.63**

Kabuuang oras ng  
patrolya



**0**

Bilang ng natanim



**14**

Bilang ng nabisitang pugad  
ng mga cavity nesters



**0**

Bilang ng ilegal na  
gawain na naobserba



**18**

Pinakamataas na bilang sa  
tulugan ng Katala



**4**

Pinakamataas na  
grupong Talusi na nakita



**30**

Nakitang namumunga at  
namumulaklak na puno



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

April 2022 SUMMARY  
Dumaran Island Critical Habitat  
Dumaran, Palawan



17

Bilang ng nagawang  
patrolya



101.21

Kabuuang kilometrong naabot ng  
patrolya



41.18

Kabuuang oras ng  
patrolya



0

Bilang ng natanim



20

Bilang ng nabisitang pugad  
ng mga cavity nesters



0

Bilang ng ilegal na  
gawain na naobserba



18

Pinakamataas na bilang sa  
tulugan ng Katala



4

Pinakamataas na  
grupong Talusi na nakita



31

Nakitang namumunga at  
namumulaklak na puno



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**Figure 1.** Dumaran Island Critical Habitat connects two locally declared cockatoo reserves and establishes a corridor through reforestation and assisted regeneration.



The Dumarán Island Critical Habitat (DICH), comprising 1,628 ha, was established through PCSD Resolution No. 14-513 that connects the two existing cockatoo reserves through a corridor and extends to include remaining forest fragments in the area (Fig. 1). This is the first critical habitat established in the Province of Palawan. A Local Protected Area Management Committee (LPAMC) functions as its interim management body.

### Conservation Objectives

1. Maintain the species diversity and function of ecosystems and species within the declared Critical Habitat.
2. Identify and preserve priority sites for conservation and maintain their ecological functions.
3. Prevent and report to enforcement agencies illegal activities that compromise the integrity of the conservation area.

### Conservation Targets

1. Increased number of Philippine Cockatoo breeding pairs on Dumarán by at least 20% by 2024 (Baseline: average breeding pairs 2019 to 2021: 5.0);
2. Increased percentage points in KAPP survey results by at least 20%;
3. Pursued supplementation of Philippine Cockatoos using suitable rescued birds;
4. Reforested or enrichment-planted at least eight hectares per year;
5. Reduced threats in the area by 50% from 2022-2024.

### Methods

Deputized wardens patrol by foot within site and there are times by boat especially when patrolling is done along the mangroves area or within the separate island. Patrol members use a technology-based system to register all observations (threats, status, and wildlife data) in the android and transferred them to a smart application to generate reports (Critchlow et al., 2017; Teacher et al., 2013). Species to be monitored are based on their red-list status and their value as bio-indicators (IUCN, 2019). Ease of identification in the field was considered as well. The maps are generated and analyzed through ArcGIS. Patrols are coordinated with the concerned barangay, LGU, and Bantay-Dumarán wherever it applies.

## II. PATROL TEAM AND EFFORT

The nest monitoring and patrols are conducted by our wildlife wardens, volunteers and PCCP staff: Michael Plazos, Nestor Arzaga, Orlando Balmonte, Felipe Condesa, Eddie Derecho, Angelu Paduga, Maximo Pineda and volunteers Domingo Sy and Andres Aurelio.

Regular monitoring of forested areas inside and outside the DICH were conducted by KFI staff and wardens. Possible threats, fruiting trees, and wildlife were recorded. Moreover, suitable driftwoods that can be used as artificial nest boxes (ANB) were collected. The breeding season of cavity nesters have commenced and regular monitoring and visitation of known nest trees and potential nests were continuous. In total 20 nest trees of several cavity nesters were visited.

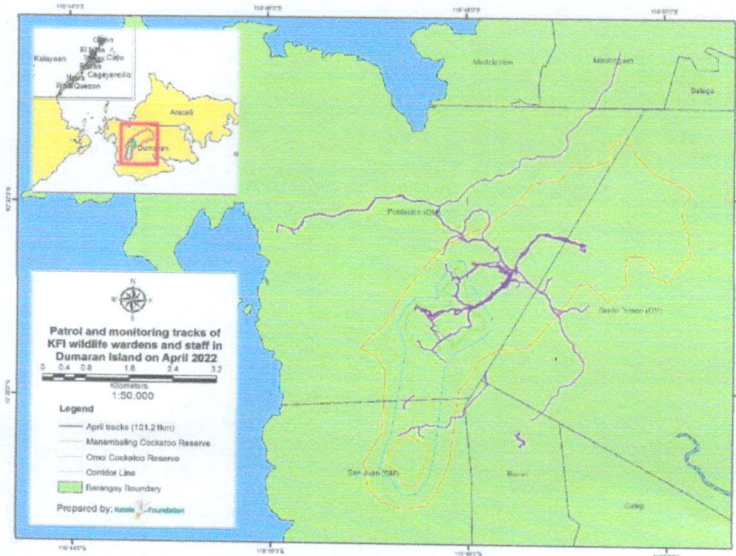


Figure 2. Patrol tracks for the month of April @KFI



We covered distances of 170.13 and 101.21kms in 15 and 17 patrols for March and April respectively within the Omoi and Manangbaling Protected Area, forested area within Bulalakaw, Camaya, Candez, Kasipulo and Bgy. San Juan. Wardens installed three artificial nest boxes (ANBs) in March out of fallen cavities.

Regular monitoring in the roost was conducted for the month. Ten to 18 cockatoos were observed at the site. Breeding pairs have temporarily moved to the forest due to the season and thus, cockatoos in the roost were fewer compared to other months. In April, there were mostly 18 cockatoos observed in the roost every morning (15 times) and afternoon counts (16 times). Weather conditions in March was fair with only 2 occasions of rain in the last two days while in April weather in the roost varied with records of fine weather (12 days), rain (six days), and cloudy and windy days (12 days).

### PATROL OBSERVATIONS

#### *Philippine Cockatoo Breeding season assessment and monitoring*

Three Philippine cockatoo nests were visited out of the 20 monitored trees; there were no recorded eggs from these nests, however, there were already signs of occupations, e.g., feces, cut twigs, and small feathers, on all nests. Three ANB of the said species were also visited; similar to the regular nests, no eggs were recorded from these ANB but signs of occupations were present. Visiting cockatoo pair was recorded by installed camera trap in one of the ANB; both of these cockatoos were tagged individuals from a previous breeding season.



**Figure 3.** Cut twigs observed below visited nests (top-left); SWE0 Arzaga as he emerges in a cavity nest (top-right); A cockatoo pair was regular visitors to ANB 20; no occupation was observed yet (bottom) @KFI

#### *Supplementation of natural population*

The aviary was fixed and cleaned for possible rescue and release of cockatoo hatchlings for this year's breeding season. Rescued hatchlings from other sites may be translocated to the



island to supplement the natural population of cockatoos which may be already subject to inbreeding or population ageing.

### **Foraging**

Two species, i.e., Kulayan, Kalampinay, were observed to be fruiting in the phenology plots of Omoi, Candez, and Manambaling while Ipil, Betad, Kulayan, and Kalampinay were seen to be flowering. Many Pagatpat trees were also recorded to be fruiting and flowering but no observation of leaf growth or abscission which is in contrast with the three former plots with numerous leaf activities.

Thirty-one food-providing trees were recorded in this period of which 28 have fruits, five have flowers, and two have nectars, consumed by several wildlife including the Philippine Cockatoo and other cavity nesters. Specifically, Bignay, Bunuang, Kalampinay, Kulayan, Ipil, Luwas-luwas, Narra, and Pagatpat are the ones foraged by Katala in the island.



**Figure 4.** A fruiting Iniol (left) and Banaba (right) observed during monitoring. @KFI

### **Other cavity nesters**

Four Blue-naped Parrot nests were visited with a single nest having two eggs. Two nest of Blue-headed racquet tail nests were visited in which one has no sign of occupation and the second nest with biting's on the side of the nesthole.

Four new potential nest trees were also visited. Two of these are potential nests of Red-headed Woodpecker, one of White-bellied Woodpecker, and one of Blue-headed Racket tail. The nest of the White-bellied Woodpecker was recorded to have one egg. Two ANB for other cavity nesters were also visited with one nest occupied by a pair of Blue-naped Parrot incubating two eggs. Other birds also visited an ANB i.e., Red-headed Flameback and Asian Glossy Starling.



**Figure 5.** A Red-headed Flameback (left) and an Asian Glossy Starling (right) visited an ANB. @KFI



### **Palawan Hornbill Monitoring**

One to four hornbills were recorded from 25 observations in eight areas of the island i.e., Omoi, Candez, Manambaling, Bacao, Otok, Bulalakaw, Baing, and Luyang. Most of these observations were from Omoi Cockatoo Reserve. Hornbills were observed perching, feeding, and calling on Kulayan, Coconut, Balite, Katmon, Ipil, Maniksik, Cashew, and Saleng trees. Two hornbill nests and one ANB for the species were visited but no signs of occupations though one had dried leaves on nest as were observed.



**Figure 6.** A hornbill perched on a cashew tree (left); a Green Crested Lizard observed in the forest (right). @KFI

### **Other wildlife species**

Thirty-nine (39) species were recorded in Omoi reforestation site while 36 species were recorded from a single-day monitoring in Biodiversity Monitoring System (BMS) stations in the DICH. Twenty-five species were recorded in both areas; these are Ashy Drongo, Asian Box Turtle, Asian Glossy Starling, Barred Buttonquail, Black-naped Oriole, Blue-headed Racket-tail, Blue-naped Parrot, Common Iora, Copper-throated Sunbird, Oriental Dollar Bird, Green Imperial Pigeon, Grey-cheeked Bulbul, Hill Mynah, Hooded Pitta, Lovely Sunbird, Palawan Water Monitor, Olive-winged Bulbul, Palawan Hornbill, Red Junglefowl, Spotted Dove, Spangled Drongo, White-collared Kingfisher, Yellow-throated Leafbird, Zebra Dove, and Northern Palawan Tree Squirrel.



**Figure 7.** Black-chinned Fruit-dove (left) and Oriental Dwarf Kingfisher (right) recorded during patrolling and monitoring. @KFI



Ground camera traps recorded several species including Philippine Megapode, Palawan Water Monitor, Common Palm Civet, Hooded Pitta, Northern Palawan Tree Squirrel, Palawan Tree-shrew, Long-tailed Macaque, and rats.



**Figure 8.** Northern Palawan Tree-squirrel (top-left); Palawan Tree Shrew (top-right); Palawan Water Monitor (center-left); Philippine Megapode (center-right); Long-tailed Macaque (bottom-left); and Asian Palm Civet (bottom-right) recorded by a ground camera trap. @KFI

### III. OTHER HIGHLIGHTS

There are currently 17,009 wildlings in the main nursery; this is the sum of the previous month's total (14684) and this month's collected wildlings (2615). Most of the wildlings are Nato (4964), Palomari (4579), Baslayan (2526), and Dumaran (1165). In Candez satellite nursery, 1378 wildlings are currently available after dead wildlings (31) were subtracted and collected wildlings (53) were added on last month's tally (1356). On the other hand, Manambaling satellite nursery houses 1329 wildlings; 75 wildlings were collected while four died this month on the said nursery. No wildlings are present in the growth chamber. Moreover, no wildlings were planted due to scarcity of rain in the island. The highest rainfall data was recorded in Candez i.e., 326mm, followed by Lagan (75mm) and Omoi (seven mm). Regular activities in the nursery e.g., potting, landscaping, cleaning, were continuous.





**Figure 9.** Potting of soil (left) and arranging of wildlings (right) as part of regular activities in the nursery. @KFI

As of this writing, we have distributed 12 pieces of galvanized iron sheets (12ft each), 10 kilos umbrella nails each to 88 households and 60 more households got the same amount of corrugated sheets, umbrella nails and additional two rolls of sawali from Barangays Bacao, Bohol, Poblacion, Sto. Tomas, San Juan, Catep, and Calasag. Two hundred sacks of rice were also distributed to island barangays that was coordinated with the LGU MDRMO. The LGU Dumarán was kind to allow us use of three municipal trucks to haul the materials from Puerto Princesa City to Sta. Teresita Ligit and they as well provided the bangka to ferry all these materials to the island of Dumarán. KFI did initial assessment of damages on housing of these beneficiaries along with the MPDO of Dumarán and the MDRMO. We are also helping a church in San Juan, Dumarán rebuild their chapel. We shall monitor the progress of all these relief efforts. We also thank dearly our generous donors, private individuals and supporters of the Katala Foundation Inc.

We are hoping our “Ayudang Pambahay alay ni Abukay sa Dumarán” will help residents and local partners get back to normal after damaged by Typhoon Odette. We encouraged each recipient to plant as well indigenous trees that support local wildlife in Dumarán especially those that provide food to target species in the area.

#### **IV.ISSUES, CONSTRAINTS, AND ACTIONS TAKEN**

With the change in the local administration in Dumarán, we are hoping to continue the fruitful endeavor in the island in partnership with the local government unit. Enforcement should be strengthened to prevent mismanagement of forested areas and resources, inside and outside the critical habitat. Kaingin practices should be monitored so that it will not extend inside the DICH specially in the two cockatoo reserves.





**Figure 10.** Recipients of housing materials received sawali, yero, and nails to jumpstart their recovery after the typhoon Odette. @KFI



## ACKNOWLEDGEMENT

Thank you very much to the LGU-Dumaran through the leadership of Mayor Arnel Caabay, Vice Mayor Pablo and their able staff, Municipal Administrator Alberto Ajud, MENRO Caabay, all department heads, barangay officials, and everyone in the LGU for helping us always with the utmost attention.

We are indebted to our deputized wardens of Dumaran: Nestor Arzaga, Orlando Balmonte, Felipe Condesa, Eddie Derecho, Angelu Paduga, Maximo Pineda and volunteers Domingo Sy and Andres Aurelio for their services and efforts provided to the KFI-PCCP Dumaran project.

Great thanks also to the PCSDS and DENR-ROXAS for their support. We are grateful to the whole KFI family and supporters for their help, assistance, and sharing expertise and ideas.

We are indebted to the following organizations and agencies for providing funds for this project:



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

March 2022 SUMMARY  
IPPF-PPC, Palawan



**13**

Bilang ng nagawang  
patrolya



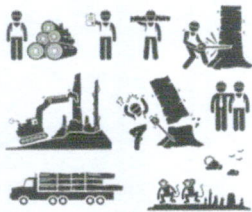
**210.2**

Kabuuang kilometrong naabot ng  
patrolya



**128.1**

Kabuuang oras ng patrolya



**5**

Bilang ng illegal na  
aktibidades



**0**

Bilang ng naaresto



**877**

Bilang ng halaman sa nursery



**55**

Pinakamataas na bilang sa  
tulugan ng Katala



**4**

Pinakamataas na  
grupo ng Talusi na nakita



**30**

Pinakamataas na bilang ng  
katala sa kinakainan



Bilang ng pugad na may in-  
dikasyon ng cavity nester

**5**

**5**



Bilang ng itlog ng Katala



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# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

April 2022 SUMMARY  
IPPF-PPC, Palawan



7

Bilang ng nagawang  
patrolya



215.7

Kabuuang kilometrong naabot ng  
patrolya



77.6

Kabuuang oras ng patrolya



3

Bilang ng illegal na  
aktibidades



0

Bilang ng naaresto



1497

Bilang ng halaman sa nursery



40

Pinakamataas na bilang sa  
tulugan ng Katala



5

Pinakamataas na  
grupo ng Talusi na nakita



8

Pinakamataas na bilang ng  
katala sa kinakainan



Bilang ng pugad na may in-  
dikasyon ng cavity nester

9

17



Bilang ng itlog ng Katala at  
iba pang cavity nester



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## KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY IWAHIG PRISON AND PENAL FARM (IPPF)

March - April 2022

Prepared by:

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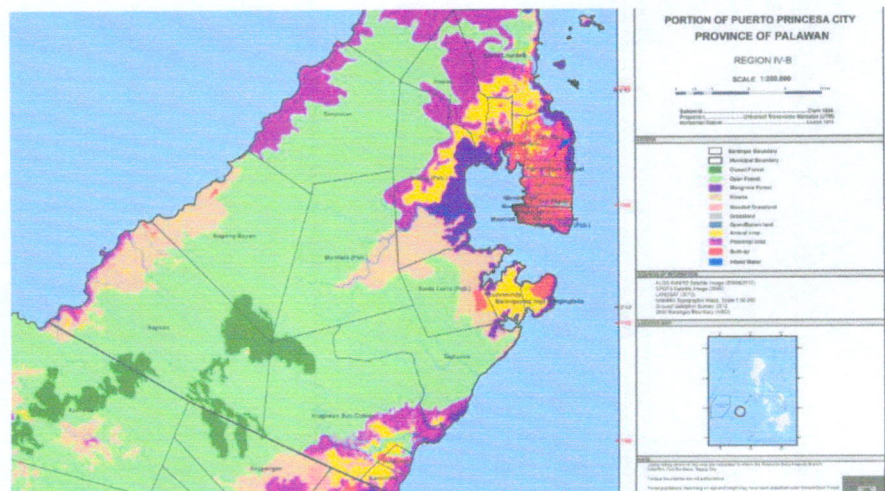
### I. GENERAL DESCRIPTION OF THE CONSERVATION AREA, CONSERVATION OBJECTIVES, CONSERVATION TARGETS, AND METHODS

IPPF is part of a larger landscape, the Sulu Sea plain, which comprises the lowlands of central Palawan facing the Sulu Sea and including areas of Puerto Princesa City, and the municipalities of Narra and Aborlan.

The area is bordered by the Victoria-Anepahan Range to the west and the Sulu Sea to the east; the northern edge runs roughly along 9° 47' N, the southern along 9° 9' N.

Philippine Cockatoos have long been known to persist in the IPPF south of Puerto Princesa City. More recent are flocks of cockatoos from Rasa feeding on the mainland of Narra, and from Iwahig Penal Colony feeding in coastal areas of Puerto Princesa City,

particularly in the compound of the Western Command (WESCOM) and Bgy. Banca-Bancao. Large parts of the coastal plains are cultivated, mainly with coconuts and rice paddies, particularly in Narra and Iwahig, where irrigation is available. Extensive areas of disturbed grassland-forest mosaics persist, which are habitats for a surprisingly high number of Palawan endemics. One explanation for this phenomenon could be that the present vegetation resembles that of some periods in the Pleistocene. These areas are used as pastures, but also for the collection of a wide variety of forest products. Grass fires are a regular occurrence and partly the vegetation is adapted to these occurrences (*Antidesma* fire savanna). Extensive evergreen and semi-evergreen lowland forests exist at the foot of the Victoria Anepahan Range, on fossil



**Figure 1.** Land use of southern Puerto Princesa, including IPPF according to NAMRIA. Large areas were classified as open forest (bright green signature); this is not in line with observations on site, where large areas of closed forests were recorded particularly in portions of Iwahig, Tagburus ("Zigzag") and Montible (Source: NAMRIA)



limestone reefs in Narra and Aborlan, south of the Bay of Puerto and in the Iwahig Penal Colony. Particularly the latter area is of outstanding conservation importance. All endemic lowland bird species are recorded from the area. Globally threatened species, aside from the Cockatoo, include Palawan Peacock-pheasant *Polyplectron napoleonis*, Blue-headed Racquet-tail *Prioniturus platenae*, Palawan Hornbill *Anthracoceros marchei*, Red-headed Flameback *Chrysocolaptes erythrocephalus* Great Slaty Woodpecker *Mulleripicus pulverulentus*, Falcated Wren-babbler *Ptilocichla falcata*, and Palawan Flycatcher *Ficedula platenae*. Because of the abundance of brackish and freshwater wetlands Iwahig Penal Colony is an important wintering ground for waterbirds, including the endangered Black-faced Spoonbill *Platalea minor*.

### Conservation Objectives

1. Maintain the species diversity and function of ecosystems and species within Iwahig Prison and Penal Farm (IPPF).
2. Identify and preserve priority sites for conservation and maintain their ecological functions.
3. Prevent or report to enforcing agencies illegal activities that compromise the integrity of the conservation area.

### Conservation Targets

1. Increased number of Philippine Cockatoo breeding pairs in Iwahig Prison and Penal Farm by at least 10% by 2024 (Baseline: average breeding pairs 2019 to 2021: 9.3).
2. Reduced threats in the area by 50% from 2022 to 2024.
3. Restored at least two hectares of cockatoo breeding and foraging habitats annually by 2024
4. Established a critical habitat for the Philippine cockatoo and other threatened wildlife species within the Iwahig Prison and Penal Farm and support the protection of the proposed Montible watershed.

### Methods

Deputized wardens patrol by foot or by boat monthly within site. Patrol members use a technology-based system to register all observations (threats, status and wildlife data) in the android and transferred to a smart application to generate report ([Critchlow et al., 2017](#); [Teacher et al., 2013](#)). Species to be monitored are based on their red-list status and their value as bioindicators ([IUCN, 2019](#)). Ease of identification in the field was considered as well. The maps are generated and analyzed through QGIS.

Patrols are coordinated with the concerned barangay, prison farms, protected area office wherever it applies.

## II. PATROL TEAM AND EFFORT

The patrol team composed of KFI, PCSDS, DENR, IPPF personnel, and wildlife wardens conducted 13 patrols and monitoring at foraging areas within the city, breeding habitat and the surroundings of the penal farm. The team covered **210.2km** in March and April respectively. Please refer to the list of team members on the last page.

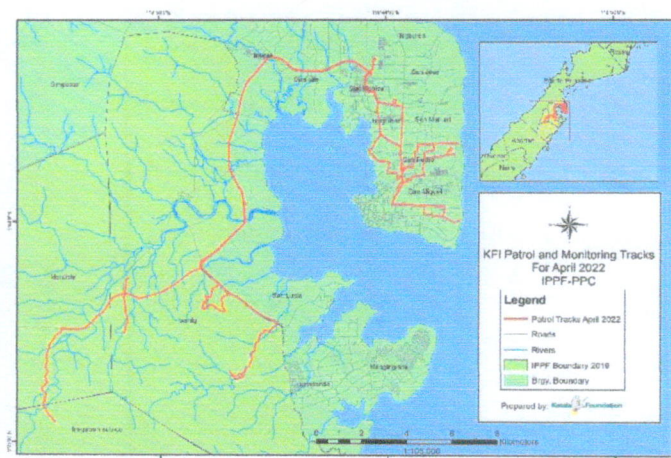


Figure 2. Patrol tracks for April 2022 ©KFI



### III. PATROL OBSERVATIONS

#### A. WILDLIFE OBSERVATIONS

- *Intensive monitoring in foraging and roosting areas continued.* Roosting cockatoos were monitored in two roost sites within the penal farm and the city area. The highest recorded count in the city was 55 and 40 in March and April respectively, while there are no roosting cockatoos in the Montible roost site. During the daytime (5:30 am-5:30 pm), cockatoos in the city were observed foraging Pagatpat and Malunggay before dispersing in different parts of the city. In San Miguel, 12-20 cockatoos were observed flying towards Malvar from Cabiguen St. Some were flying from the city coliseum to BM beach. 20 cockatoos were observed flying towards the new airport from Mercado de San Miguel. Concerned citizens also reported cockatoo sightings of 20-30 individuals in the Mandaragat area and 15 individuals in San Manuel. Eight cockatoos were also seen in Purok Gumamela, Brgy San Manuel; between 7:00 am to 8:00 am, cockatoos were foraging in Apitong trees and then flew towards the seaside. We noted that Taluto, Malabulak, and Banaran are now flowering or fruiting in the city area; while Pagatpat fruits are scarce. In Montible, cockatoos were observed flying from Malabo Forest, crossing Tagtalaba and Bacoco river to Iwahig central to forage on other fruiting trees. In Luzviminda 2-4 cockatoos were seen foraging in Taluto tree, and up to 5 hornbills were seen roosting in a Bayoso tree near the areas of one of KFI's volunteer.
- In March, the composite team of KFI, PCSD, DENR, and wildlife wardens conducted an eight-day nest monitoring and habitat assessment in Malabo, Tagtalaba, Menor, Sta. Lucia, Sibakan and Luzviminda forest. Thirty-two nest trees, including some inactive nest trees from the previous years, were visited for the month. Only five nest trees indicate that cockatoos or other nesting birds are now occupying the nest trees. Feces and feathers were observed in the base and inside the nest cavities. Meanwhile, we recorded **five cockatoo eggs** from 3 nest trees in Luzviminda, Menor, and Sta. Lucia. Some of the 32 nest trees visited are not standing anymore, and some nest cavities have already been destroyed.
- In April, we banded on a Philippine cockatoo hatchling in Luzviminda where in previous month, we recorded three eggs in the nest cavity of the said hatchlings; upon monitoring, we noted that two out of the three eggs were rotten.

**Figure 3.** Snapshots during the leg banding of the Cockatoo (top) @KFI



- Meanwhile, two eggs of a Blue-naped parrot were also recorded in one of the two active nest trees in Luzviminda. In Sta. Lucia, one cockatoo egg went missing and was believed to be predated by Monitor Lizard; two hatchlings of the Philippine Cockatoo were also recorded in a known active nest tree. Meanwhile, an egg of the Oriental Dollarbird was dropped/predated by the parent in the same area. In Malabo and Montible, We recorded two eggs of the Blue-naped parrot, two eggs of Philippine Cockatoo, and three eggs of the Palawan Scops Owl. We also recorded three potential nest trees, including one nest tree with two cavities occupied by the Philippine Cockatoo and Blue-naped parrot, while



the Blue-naped parrot and Hill Myna occupied two nest trees. These nest trees will be verified next month.

- *Observation of wildlife and other cavity nesters monitoring.* At least two to four Palawan Hornbills and six Blue-naped parrots were seen foraging in Malabo Forest; we also recorded a Blue-headed racket-tail inside the Montible sub-colony and in Tagatalaba River. Other avian species recorded in two months include tracks of Palawan peacock pheasant, Red-headed Flameback, White-bellied Woodpecker, Spot-throated Flameback, Great Slaty Woodpecker, White-bellied Sea eagle, juvenile Crested Serpent Eagle, Oriental Dwarf Kingfisher, Black-naped Oriole, Common Iora, Palawan Drongo, Palawan tit, Rufous-tailed tailorbird, Melodious babbler, Ashy-fronted Bulbul, White-vented Shama. Non-avian species include Palawan-Flying Squirrel, Palawan Stink badger, Palawan bearded pig, Philippine Mock Viper, Palawan porcupine (quills), Red-tailed green rat snake, and a Paradise tree snake.

## **B. THREAT OBSERVATIONS**

### **MARCH 2022**

During the monitoring in Luzviminda, at least ten remnants of felled trees were already hauled. We also recorded three charcoal pits that were currently burning in the area. Some individuals were also seen bathing in the river, while two individuals were seen carrying supplies going inside the forest. In Anibungan forest, two shanties were recorded while three individuals were observed hauling the charcoal they made in the area.

Meanwhile, we also observed some signs of poaching in Menor Forest, foot tracks near the nest tree were seen at least 10 meters along the trail. In Luzviminda Forest, we also noted that some individuals passed on the trails near the nest tree with three eggs. Poaching in the area was observed in the past two consecutive years.

### **APRIL 2022**

This month, poaching and encroachment in the IPPF were recorded; at least one hatchling of Philippine Cockatoo was poached in Montible forest. Due to flooding and heavy rain, no signs of the alleged perpetrator aside from the cuttings in the nest tree itself and a missing hatchling. In Luzviminda, at least four individuals were seen bathing in the riverbanks along the forest's trails; we also saw a charcoal pit in one of the shanties near the river area and markings/pathways of hauled trees near Sta Lucia sub-prison.

Expansion of encroachment in Montible was also noted; a known nest tree near Km 32 was not visited since violators infested the area. Meanwhile, encroachment in the Malabo area was also visible with structures and other shanties were constructed near the Malinao river that supplies water in some parts of the city.

## **IV. Other Highlights**

In March, we reinstalled the artificial nest box (ANB) that was felled by the typhoon on a 30m tall Amugis tree near the Montible sub-prison. Another ANB made out of dead trees was made and will be installed after finalizing the design. The fencing of Montible nursery was now complete.

Meanwhile, the wildlife wardens collected six bags of Taluto seeds in Bancao-bancao of which 620 Taluto seedlings were propagated in the Montible sub-colony nursery.

## **V. ISSUES, CONSTRAINTS, AND ACTIONS TAKEN**

- During the monitoring, we observed several illegally cut trees. Since the DENR and PCSDS representatives were present during said monitoring, we hope these illegal activities are also reported to their respective offices.



- Increased patrolling in the sites is necessary to avert further destruction of lowland forests. Our patrols will continue despite challenges, and we hope that law enforcement agencies value patrols as a vital step to prevent destruction.
- Construction of a small hut to store equipment and serve as seedlings shade will be constructed after the breeding season activities. Improvised seed partitions and seedbeds will be made to accommodate wildlings and seedlings collected for the subsequent months.
- Scarcity of active nest trees, as of this month, only five nest trees of the Philippine cockatoos were active hence search for new nest trees will be scheduled next month in Malabo forest.

## VI. RECOMMENDATIONS

Policies on and better enforcement of lowland forest protection and conservation must be implemented and sustained, especially within IPPF and the Victoria Anepa'am Mountain Range (VAMR)! Lowland forests harbor more biodiversity than montane forests; thus, they should be protected against encroachment and further destruction.

## ACKNOWLEDGEMENT

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To all those who, in one way or the other, had contributed to the achievement of our shared vision for the conservation of biodiversity in the IPPF, great thanks!

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**Figure 4.** Taluto seeds falling from the tree (top-left), wildlife warden checking one of the active nest trees in IPPF (top-right). PCSD and DENR staff helping carry the ANBs that was installed near the area (left).  
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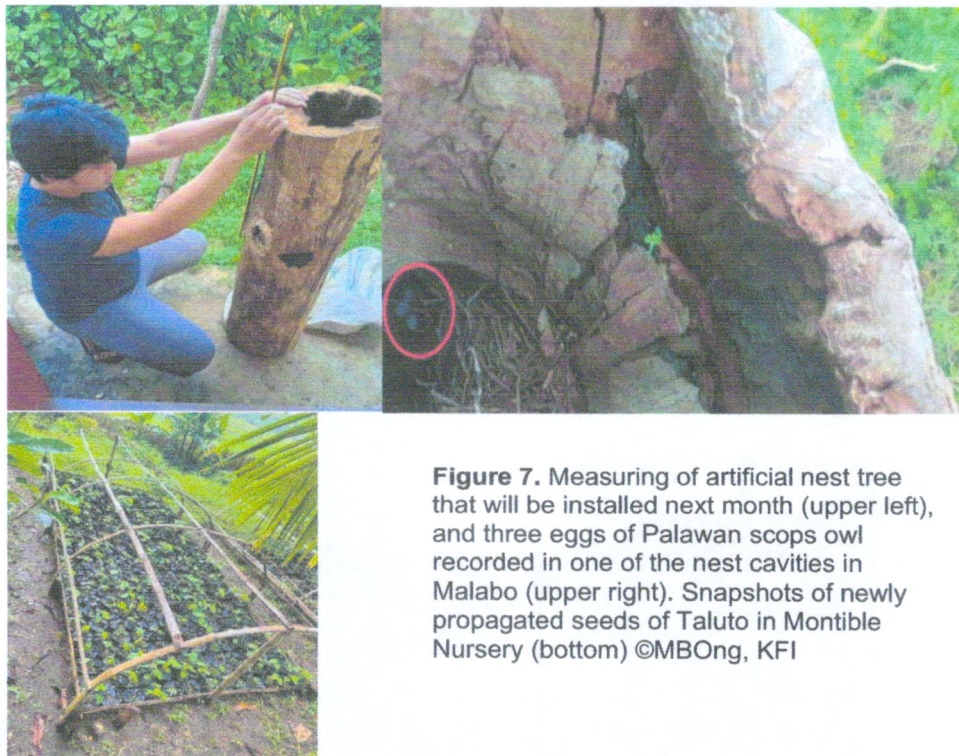


**Figure 5.** The composite team passing on the top of a fallen tree in Anibungan Forest (left). Part of Sta Lucia and Sibakan Forest with abundant tall trees suitable for cavity nesters(right)  
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**Figure 6.** Charcoal pits seen in Luzviminda Forest (middle) and fallen trees allegedly for charcoal making (bottom). ©MBong, KFI



**Figure 7.** Measuring of artificial nest tree that will be installed next month (upper left), and three eggs of Palawan scops owl recorded in one of the nest cavities in Malabo (upper right). Snapshots of newly propagated seeds of Taluto in Montible Nursery (bottom) ©MBong, KFI





**Figure 8.** An old measuring tape was seen on one of the trails in Sta. Lucia (top-left). Charcoal pit and slabs of wood near one of the shanties in Luzviminda (top-right). Destruction of Luzviminda river due to illegal cutting of trees and encroachment (middle) flooding in Montible river and Tagtalaba river. (bottom-left) a pathway of a hauled tree near Sta. Lucia sub-prison. ©MBong, KFI