



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

E-mail: penropalawan@denr.gov.ph

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

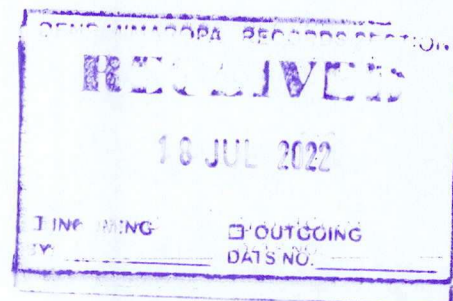
July 05, 2022

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
MONTH OF MAY 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. Dumarán Island Critical Habitat, Dumarán, 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.



[Signature]
FELIZARDO B. CAYATOC

DENR-PALAWAN
PENRO-RECORDS
RELEASED
By *[Signature]*
Date: 08 JUL 2022 CN 22-1648



R4B PENRO Palawan <penropalawan@denr.gov.ph>

PCCP Patrol Reports for May 2022

1 message

Katala Foundation Inc. <kficacatua2016@gmail.com>
To: R4B PENRO Palawan <penropalawan@denr.gov.ph>
Cc: Indira Lacerna <idlacerna@gmail.com>

DENR PENRO
PALAWAN RECORDS
RECEIVED

Wed, Jun 29, 2022 at 3:12 PM

BY: 
DATE: 06-29-2022 22:5701

Dear PENRO Cayatoc:

We furnish herewith our May 2022 Patrol reports from the PCCP project sites:





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

We appreciate the acknowledgement of said report. Thank you for your continued partnership.

KATALA FOUNDATION INC.

Casuy Rd., Purok El Rancho
Sta. Monica/ P.O. Box 390
Puerto Princesa City, Palawan 5300
Philippines

CONSERVATION WITH PEOPLEVirus-free. www.avast.com**4 attachments**

-  **Pandanan PATROL REPORT - May 2022.pdf**
1340K
-  **Rasa PATROL REPORT - May 2022.pdf**
1593K
-  **Dumarán PATROL REPORT - May 2022.pdf**
2021K
-  **IPPF PATROL REPORT - May 2022.pdf**
3611K

KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

May 2022 SUMMARY
Pandanan and Bugsuk
Balabac, Palawan



19

Bilang ng nagawang
patrolya



64.9

Kabuuang kilometrong naabot ng
patrolya



52

Kabuuang oras ng patrolya



1

Bilang ng illegal na
kailangang aksyunan



0

Bilang ng naaresto



20

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



82

Pinakamataas na bilang
sa tulugan ng Katala



68

Bilang ng cavity nesters



425

Nakuhang pananim



0

Nakuhang mga silo o patibong ng
mga buhay-ilang



09675176935



048-434-7693



kficacatua2016@gmail.com



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

May 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 understorey 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*,

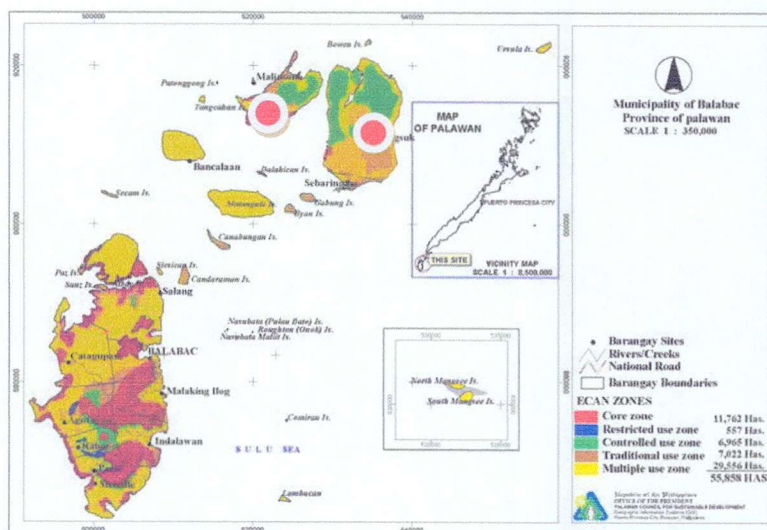


Figure 1. Location map of Pandanan and Bugsuk Island (red dots) in municipality of Balabac, Palawan (Map: PCSDS).

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.

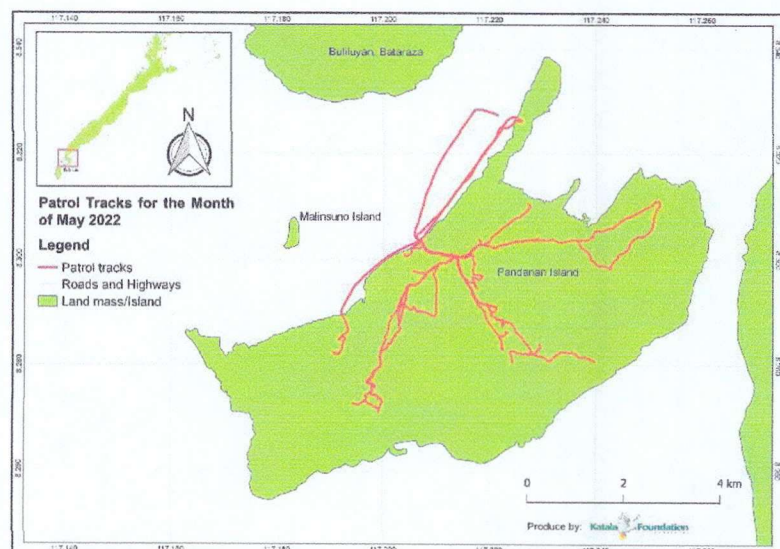
Methods

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

Patrolling and monitoring at Pandanan were conducted by wildlife wardens covering a total distance of 64.9km. Routine nest monitoring visit and intervention was made this month in all active and occupied Cockatoo and Hornbill nest trees within the island. While monitoring for new transient within the island settlements continued.

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



III. PATROL OBSERVATIONS

A. Wildlife observations

Seven threatened bird species were recorded this month inside Pandanan Island: Blue-headed racquet tail, Blue-naped parrot, Hill Mynah, Mantanani scops Owl, Palawan Hornbill, Palawan scops Owl and Philippine Cockatoo. Other bird species recorded within this period were Green imperial pigeon, Spot throated woodpecker, Stork billed kingfisher and Tabon scrubfowl.

Other wildlife recorded include Monitor lizard, Long-tailed macaque and Flying squirrel while marine species like Green sea turtle and Hawksbill sea turtle continue to be found along the coastal waters of north to western Pandanan Island. Patrolling further recorded the presence Dark-eared treefrog *Polypedates macrotis* and freshwater crab species possibly *Geosesarma* sp.. Presence of these two species were found in northern Pandanan Island, trailing accidentally flush out the *P.macrotis* while freshwater crab was found in most Bayoso tree knotholes which also contain rainfed waters.



Figure 3: Dark-eared treefrog (left) and a freshwater crab (center and right). Both recorded during this month patrolling at Pandanan Island (Photos: RAntonio).

B. Philippine Cockatoo and Palawan Hornbill nest monitoring

Complete nest checking and monitoring activity was made in all active and occupied nest tree at Pandanan Island. In total 20 nest trees are active and contain cockatoo hatchlings (19 nest tree recorded active as of April reporting). Numbers of young cockatoo reach a total of 33 hatchlings this year and 31 of these were already banded with DENR 2022 monitoring leg band. Individual bird biometrics and blood samples were taken by monitoring team. No bird parasite found in all live young cockatoos; granular food is well observed in all birds' crop which signify abundance of food providing plants in the island. Low hatchling number this year is attributed to the significant loss of cockatoo eggs; where 18 eggs were either missing/lost or spoiled/rotten. Spoiled eggs are normally thrown out by parent cockatoo while other eggs were already degraded inside the nest chamber especially when nest hole's inclination is directly to catch rain. Meanwhile, seven successful fledglings were already recorded this period from three nests. Follow up monitoring on these nest trees were made and no human intrusion recorded. Continued monitoring is set in all occupied nest trees until all banded young successfully fledge out from their respective nests.



Figure 4. Leg band application and collection of blood sample of cockatoo in Pandanan Island (left and center) and destroyed cockatoo egg, shells found below the nest branch (Right, Photos: KFI 2022).

For Palawan Hornbill, only one nest was found active and occupied this month and contain one egg. Other nests were observed to exhibit nest preparation and visitation by possible hornbill occupants. Upon further observation we noticed the presence of forest trees seeds from hornbill fecal matters while hole sealant also found in some nests.

C. Philippine Cockatoo roost counts and food providing tree monitoring

Cockatoo count at the roost site is starting to increase this month, highest count taken by team is 82 during the last week of the month while lowest number recorded is 12. Low count of cockatoo is mainly affected by the weather condition in the area during the counting event. Torrential rainfall was recorded frequently in southern part of Palawan.

In terms of cockatoo and wildlife food source eighteen forest trees, two vines and a palm species were recorded on fruit bearing stage this month. These plants were represented by the following: *Alocasia macrorrhizos*, Aloyaw, Amugis, Antipulo, Bat-bat palm, Bago, Balinad, Balite *Ficus sp.*, Bayoso, Buyon, Daop-daop vines, Kaliyat vines, Kamilet, Magdita-dita tree, Magnangka-nangka, Mainggit *Cananga odorata*, Marapisa, Marampuso, Rangingi vines, Se-ar and Tarungtung (Fig. 5).



Figure 5. Recorded food source of cockatoo, hornbill and other wildlife. Pods of Balinad (left), fruit of Antipulo (center) and fruit of Buyon (Right, Photos: AOmog).

D. Community monitoring and threats observation

One new local transient was recorded at the area of Bodis, Pandanan Island as of May 26, 2022. This local came from Barangay Sumbiling, Bataraza Palawan and temporarily resides at Piping Ading house in Pandanan. The said person identified himself as Jerry Boyla, 67 years and allegedly a dentist. As recorded by our team this person is conducting a house-to-house dental extraction within sitios of Pandanan and also during market day or tabuan in the island. Proper coordination with the barangay was advised to this individual.

In terms of threats, one newly cut Antipulo tree *Artocarpus blancoi* was discovered by patroller along the Bodis Forest during May 24, 2022 forest patrolling. The tree was cut using axe to avoid being detected by patrollers. During the discovery the tree is still intact and no severing by powered saw found. No locals or individual seen on site during the discovery, regular monitoring visit is set on this particular site.

E. Nursery works and seedling collections

Collection of 425 forest tree seedlings was made on May 18, 2022, these are food and nest providing tree species. Currently our nursery area holds a total of 1285 native tree seedlings of the following species: Amugis, Bayoso, Balinad, Balangihan, Nato, Magnangka-nangka, Se-ar and Taluto seedlings respectively (Fig. 6). Tree planting is set on the following month while collection will be continued.



Figure 6. Forest tree seedlings preparation inside the nursery area of KFI at Pandanan Island (Photo: KFI 2022).

IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN

Entry of non-island resident in Pandanan particularly those from mainland Palawan become more frequent and apparently without proper coordination from village council or on designated purok personnel. Recorded personnel and transient local were advised to log in or pay courtesy at least on nearest village appointed personnel. Records show that illicit activity in Pandanan usually is tied or linked to an outsider, transient or visiting locals who have close relative in the island. So we have to keep guard of all entries on the island especially in this season.

V. RECOMMENDATIONS

A monthly monitoring visit by village council or designated personnel is highly suggested within the known sitios/settlement in the island and pursued to intensely monitor to avert any problems. Possibly to regulate these visitations in certain times of the year is an option to take.

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: J-Kris Gano for the 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 (next page):



References:

BirdLife International (2022) Species factsheet: *Caloenas nicobarica*. Downloaded from <http://www.birdlife.org> on 03/05/2022.

Critchlow, R., Plumptre, A.J., Alidria, B., Nsubuga, M., Driciru, M., Rwetsiba, A., and Beale, C.M. (2017). Improving Law-Enforcement Effectiveness and Efficiency in Protected Areas Using Ranger-collected Monitoring Data. *Conservation Letters* 10, 572-580.

IUCN (2022). IUCN Red List of Threatened Species. Version 2021-3. (www.iucnredlist.org).

Madulid, D. A. (2002). A Pictorial Guide of Noteworthy Plants of Palawan. Palawan Tropical Forest Program.

Teacher, A.G.F., Griffiths, D.J., Hodgson, D.J., and Inger, R. (2013). Smartphones in ecology and evolution: a guide for the app-rehensive. *Ecology and Evolution* 3, 5268-5278.

Widmann, I.D., S.Diaz & A. Espinosa. Observations on Philippine cockatoo in Pandanan and Buliluyan, Southern Palawan, Philippines, 2008 in Widmann, I.D., P. Widmann, S. Schoppe, D. Van den Beukel & M. Espeso, 2008 (eds.): *Conservation Studies on Palawan Biodiversity – a compilation of researches conducted in cooperation with or initiated by Katala Foundation, Inc., Puerto Princesa City, Palawan.*

KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

May 2022 SUMMARY

Rasa Island Wildlife Sanctuary and its environs,
Narra, Palawan



40

Bilang ng nagawang
patrolya



0

Bilang ng illegal na
kailangang aksyunan



215

Kabuuang kilometrong naabot
ng patrolya



0

Bilang ng mga issues na
nai-report sa PAMO



120

Kabuuang oras ng
patrolya



0

Bilang ng naaresto



110

Pinakamataas na bilang sa
tulugan ng Katala



35

Bilang ng ibang uri ng
ibon na nakita



7

Uri ng halamang namumunga



101

Pinakamataas na bilang
ng Katala sa kinakainan



09675176935



048-434-7693



kficacatua2016@gmail.com

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 BATAAC, MARIO BATAAC, LUCITO DANGIS,** Veronica Marcelo, Danilo Villaruz, Monico Beleg and Antonio Marcelo. No other nests had mites infestation in May 2022 besides two hatchlings from nest tree on southeast Rasa had mites on May 26th which were immediately treated. One of the two hatchlings on nest tree on northwest of Rasa mangroves has small lump on stomach though the hatchling does not feel hurt (Fig. 3). Endoscope was used for detection of eggs and hatchlings though some nest trees are still hard to check because of placement of chamber and cavities inside. Data loggers are checked regularly. Lobster fry at Borbon, Panacan adjacent to Rasa Island rests as southwest monsoon approaches. No expansion recorded. Three teams of wardens on Rasa covered **215kms** of nest checking, wildlife monitoring and patrol around Rasa. Total of precipitation in May 2022: **261mm** on Rasa, **137mm** on mainland.

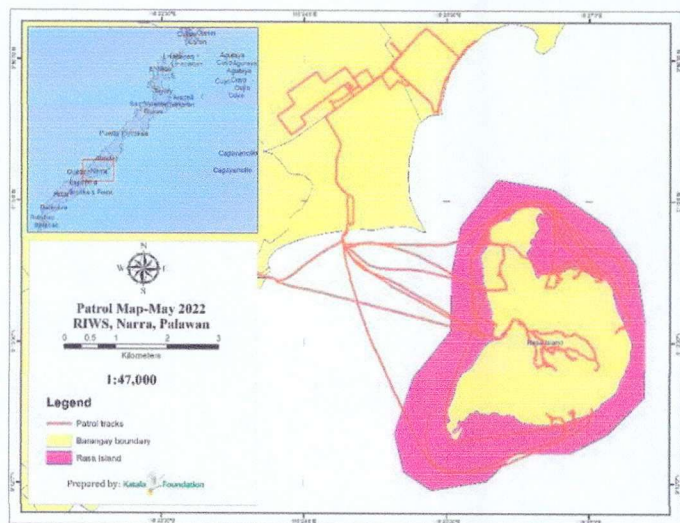


Figure 2. Patrol tracks in red marks in May 2022



Figure 3. Loreto climbs to check on nest tree (left) meanwhile Mark and Edwin bands hatchlings (right) ©KFI

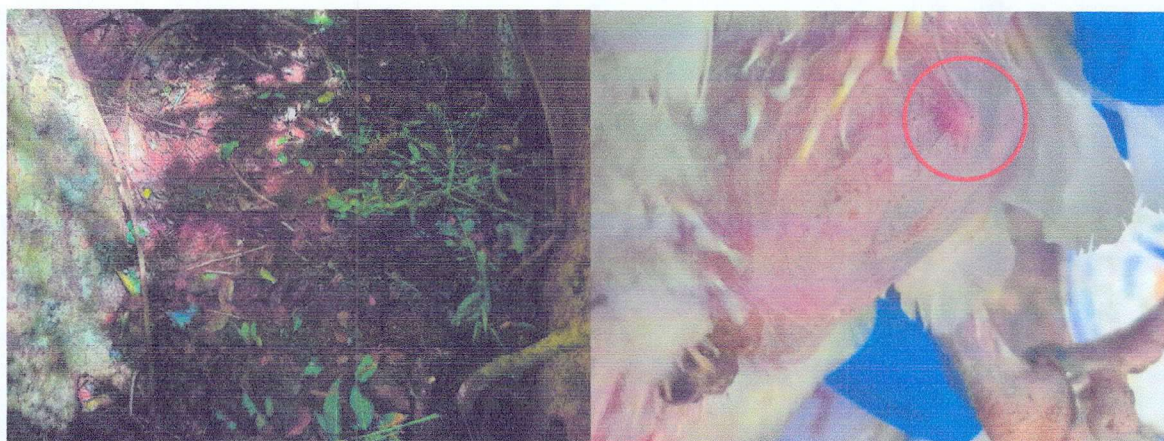


Figure 4. Cockatoos continue to cut twigs of nest tree *Bogo Garuga floribunda* (left); A lump was noticed on one of hatchlings on western Rasa (right) ©KFI

Wardens worked on the extension of camp site through roofing the outside part but is only done in between of nest checking. Meanwhile the new Katala fiberglass boat is nearing its final completion and was tested for its seaworthiness on May 21.

III. PATROL OBSERVATIONS

A. WILDLIFE OBSERVATIONS

As of May 30, 2022, 67 total cockatoo eggs were recorded on Rasa of which 31 hatched. 12 hatchlings were banded while two fledged (incl in total hatchlings) this month. 36 eggs and 14 hatchlings failed. 33 eggs were lost to natural predation by snakes, rats and monitors while others were either rotten or with cracks. Hatchlings on the other hand were lost to natural predation especially against monitors and snakes and accipiter. This month, 63 nest trees were visited on Rasa Island. 38 nest trees are occupied including Gatasan nest tree. During nest visits, we encountered six cockatoos, the highest number recorded around nest trees.

This month, Reynaldo recorded **110 cockatoo individuals** at traditional roost site on May 31 from 5:30-6:15am while 104 individuals were counted on May 30 from 6:00-6:37pm. During synchronised counting, cockatoos were still observed roosting on nest trees and no cockatoo was observed sleeping at Borbon. **101 individuals** were the highest recorded cockatoos at Borbon station crossing from Rasa to mainland from 5:50-8:16am. Although many cockatoos were observed crossing from Rasa to mainland, less cockatoos visited foraging site in Panacan 2 starting third week of the month. 35ind were the highest count recorded in foraging area in

Panacan 2. During our timed count in May 6 in the morning, Veronica counted 44ind crossing from Rasa to Borbon from 5:59-7:50am while Mark counted 18ind flying from Rasa to Antipuluan from 6:24-7:01am. Like in the previous months, less cockatoos were still observed crossing in the afternoon. On the other hand, more cockatoos foraged on mainland in the same month of 2021 than this year's month. Earliest cockatoos' flight to mainland was at 5:51am while the latest flight to Rasa was 6:10pm recorded at Borbon station. Cockatoos were still observed around foraging site between 9:00am-3:00pm.

Besides Philippine Cockatoo, we noted the following bird species on Rasa in May 2022: Tabon Scrubfowl, Blue-headed Racquet-tail (BHRT), Green Imperial-Pigeon, Red-headed Flameback/ Woodpecker, Nicobar Pigeon, Spotted Wood-owl, Western Osprey, Egret sp., Common Tern, White-bellied Sea-eagle, Great-billed Heron, Blue-Paradise Flycatcher/ Black-naped Monarch, Whimbrel, Sunbird sp., Pink-necked Green-Pigeon, Fruit-dove sp., Large-tailed Night-jar, Common Koel, Rufous Night-heron, Stork-billed Kingfisher, Reef Egret, Oriental Dwarf-kingfisher, White-collared Kingfisher, Ashy Drongo, Greater Coucal, Pipit, Emerald Dove, Rufous-tailed Tailor-bird, Asian Glossy Starling, Dollarbird and Zebra Dove. Monitor Lizard and the only Blue-naped Parrot on island were frequently encountered. On May 1 at 4:25pm, Loreto noted one Green Imperial-Pigeon flew from mangrove and spotted nest with one egg from where the bird left. This month, beehive was still observed hanging on nest 51. Reynaldo saw 1ind of snake crawling on rocks near camp on May 9. Loreto also saw one marine turtle swimming and submerging on May 11 near mangrove entrance to camp site.



Figure 5. Nest of Green Imperial-Pigeon on southeast Rasa) ©KFI

Vegetation assessment

Coastal as well as its boundaries and mangrove forests on Rasa exhibit green vegetation in May 2022. Leaf litter are less dense. Fruiting trees and vines are Pagatpat (dominant), Siar (dominant), Kalampinay, Gatasan, Balindadagat, Balete, vine sp., Rhizophora sp. And other mangrove species. Flowering trees and vines while Pagatpat, Kalampinay, Ceriops sp., Rhizophora sp. and other mangrove species.

B. THREAT OBSERVATION

Monitoring on marine resources on Rasa. On May 20, three persons collected 16kgs of mangrove crab at Alisto area for three days. On May 27, one person gathered 17kgs of mangrove crab at Kaburihan area for three days.

Monitoring on coconut plantations on Rasa. On May 20, five persons collected 500kgs from B. Batac area for seven days. On May 23, two persons started gathering coconut from Villarias area. On May 27, one person started gathering coconut on Dapdap area. On May 29, one

person collected 800pcs of copra from Dapdap area in a day. On May 30, three persons collected 450kgs of copra at Deig area in six days.

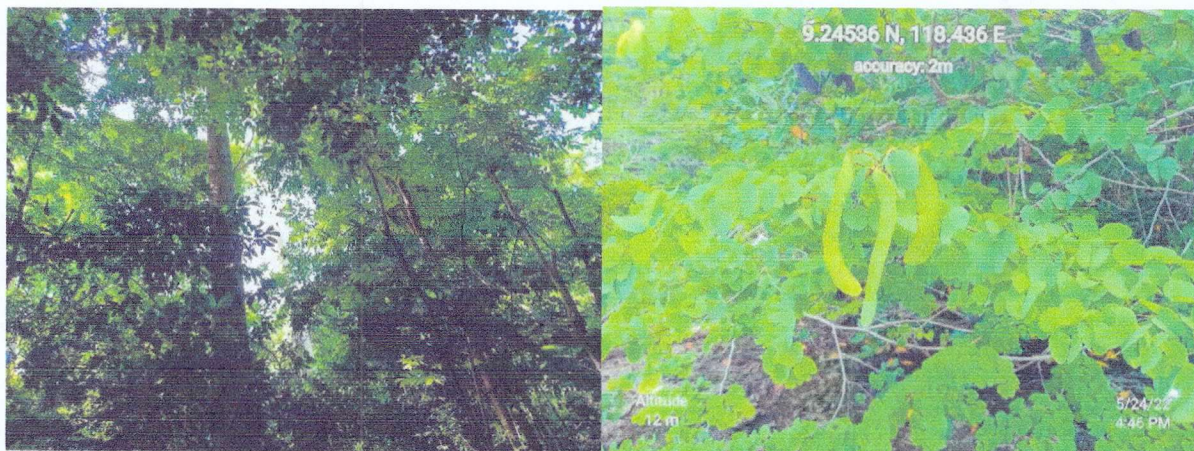


Figure 6. Green vegetation inside Rasa Island (left); Unripe Kalampinay, cockatoo food on northern Rasa (right)) ©KFI

III. OTHER HIGHLIGHTS

International World Parrot Day was celebrated online on Philippine Cockatoo Conservation Program (PCCP) Facebook page. Singaporeans, Palawan students and young leaders participated on a talk with three resource speakers that included our Conservation Champion, Indira Widmann of Katala Foundation. A video on the recovery of Philippine Cockatoo after Typhoon Odette was also watched on PCCP Fb page.

Dr. Emilia Lastica, DVCS Chair in UPLB CVM with Nancy Dimayacyac, veterinarian intern conducted In-House Workshop: Wildlife Rescue and Release Protocols on May 12-13, 2022. Katala Institute staff and Protected Area Management Office staff joined the 2-day lecture and practice on sample collection and processing.

Two caretakers from Apis lot at Bgy. Cabigaan, Aborlan sent herbarium specimens for identification, wildlings and seeds to Katala Institute for germination for reforestation.



Figure 7. KFI In-house Workshop on Wildlife and Release protocol) ©KFI

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. Update on pending cases e.g. fish corral establishment of fish corral on Rasa is appreciated. Vigilance as to collection of fossilized Taklobo must continue; 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 BATA, MARIO BATA, 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 the leadership of PASu Ma. Teresa V. Ayson and staff for their kind attention and support.

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:



References

- Critchlow, R., Plumptre, A.J., Alidria, B., Nsubuga, M., Driciru, M., Rwetsiba, A., Wanyama, F., and Beale, C.M. (2017). Improving Law-Enforcement Effectiveness and Efficiency in Protected Areas Using Ranger-collected Monitoring Data. *Conservation Letters* 10, 572-580.
- IUCN (2019). IUCN Red List of Threatened Species. Version 2019.1. (www.iucnredlist.org).
- Teacher, A.G.F., Griffiths, D.J., Hodgson, D.J., and Inger, R. (2013). Smartphones in ecology and evolution: a guide for the app-rehensive. *Ecology and Evolution* 3, 5268-5278.

KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

May 2022 SUMMARY Dumaran Island Critical Habitat Dumaran, Palawan



17

Bilang ng nagawang
patrolya



156.82

Kabuuang kilometrong naabot ng
patrolya



24.64

Kabuuang oras ng
patrolya



2949

Bilang ng natanim



28

Bilang ng nabisitang pugad at
ANB 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





KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY Dumaran, Palawan

May 2022

Prepared by:

Michael F. Plazos, Lemuel Pabico, Peter Widmann and Indira D. L. Widmann

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

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 the Palawan mainland, seven on western Dumaran Island. The island is situated in the Sulu Sea and separated by a ca. seven km wide channel from the mainland.

On Dumaran Island only a 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. Ornithological surveys conducted by Katala Foundation so far yielded 136 species from the island. A prominent species of conservation concern is the Philippine Cockatoo, which can be found with viable populations 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 Palawan Forest Turtle *Siebenrockiella leytenensis* (CR). Other species of conservation concern are Palawan Hornbill *Anthracoceros marchei* (VU), Blue-headed Racquet-tail (VU), and Palawan Pencil-tailed Tree-mouse *Chiropodomys calamianensis* (DD).

Habitat degradation and destruction, rather than poaching, remain the biggest challenge for cockatoo conservation in Dumaran.

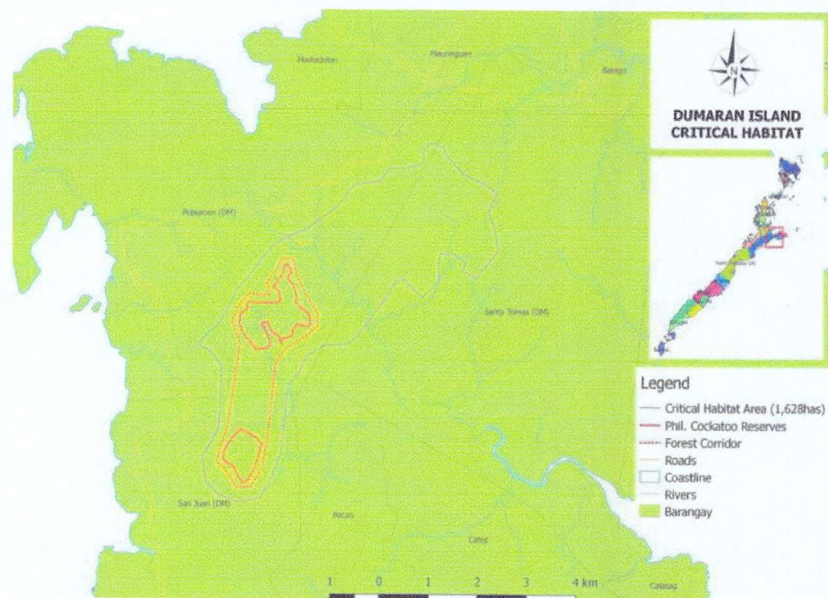


Figure 1. Dumaran Island Critical Habitat connects two locally declared cockatoo reserves and establishes a corridor through reforestation and assisted regeneration.

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

Regular monitoring of forested areas inside and outside the DICH were conducted by KFI staff and wardens: Michael Plazos, Nestor Arzaga, Orlando Balmonite, Felipe Condesa, Eddie Derecho, Angelu Paduga, Maximo Pineda and volunteers Domingo Sy and Andres Aurelio.

Possible threats, fruiting trees, and wildlife were recorded. Moreover, suitable driftwoods that can be used as artificial nest boxes (ANB) were collected. Regular visitation of known nest trees, newly discovered nests, and ANBs was continuous for the month. This month, 20 nest trees and eight ANBs of several cavity nesters were visited.

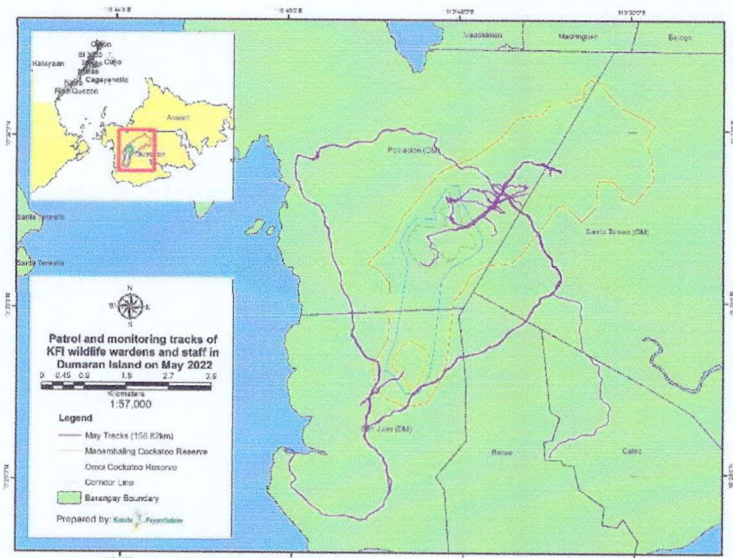


Figure 2. Patrol tracks for the month of May.@KFI

Monthly patrols covered 156.82 km and 24.64 hours from 17 patrols within the Omoi and Manambaling Protected Area, forested area within Bulalakaw, Camaya, Candez, Catep, Kasipulo and Bgy. San Juan. No threats were observed during monitoring.

Regular monitoring in the roost was conducted for the month. Eleven to 14 cockatoos were observed at the site; this is, so far, the lowest count of roosting cockatoos for the year, which may indicate the temporary nesting in the forest of most cockatoo to breed or the continuous search for food after the devastation of Typhoon Odette (Rai). There were mostly 14 cockatoos observed in the roost every morning (14 times) and afternoon counts (12 times). Fine weather was observed most of the time, but there were occasional rainfalls (five times) and cloudy weather (eight times).

PATROL OBSERVATIONS

Philippine Cockatoo Breeding season assessment and monitoring

Four cockatoo nests were climbed for this month's monitoring. No eggs recorded yet for all of monitored cockatoo nests, however, signs of occupation can be observed within these nests. The shortage of food brought by the devastating typhoon followed by very dry months at the start of the year have greatly affected this year's breeding season for the Katala and other cavity nesters.



Figure 3. Cockatoos visiting a known nest captured by an installed camera trap.@KFI

Foraging

There are lesser fruiting and flowering trees in Omoi, Candez, and Manambaling plots compared to Lagan phenology plots. Flowering/fruiting trees in the former three sites were Ipil, Kulayan, and, Kalampinay. Most of the Pagatpat trees in Lagan were fruiting and flowering. Moderate to excessive leaf shedding was also recorded in the three foremost plots but is lesser to none in Lagan phenology plot.

There were 31 food-providing trees recorded for this month which include: Anan, Amuyong, Banaba, Banga, Bangkudo, Barok, Baslayan, Batbat, Bunuang, Catmon, Dangkalan, Domalta, Kalampinay, Kulayan, Kuli, Imamangal, Inagdong, Iniam, Iniol, Ipil, Lapnog, Luwas-luwas, Magabo, Marango, Narra, Pagatpat, Panapuan, Saleng, Tagalilong, Taluto, and Tebey.

Other cavity nesters

Four Blue-naped Parrot nests were visited with two nests having two eggs each. Meanwhile, two Blue-headed Racket-tail were climbed in which a single nest currently has three hatchlings. Three Red-headed Woodpecker's nests were also visited in which two were recently discovered nests. One of these nests has two fledglings already while another has two hatchlings; no eggs nor hatchlings were recorded on the last nest. Additionally, two recently discovered nests of White-bellied Woodpeckers were visited, with one of them having one fledgling. One newly discovered nest each of the Blue-naped Parrot and Blue-headed Racket-tail were monitored with the former having two eggs and the latter having two hatchlings. A known nest of the White-collared Kingfisher has two existing hatchlings; an infertile egg was also recorded in this nest. Two hatchlings of Brown hawk owl was recorded in an artificial nest box.

Palawan Hornbill Monitoring

The highest number of hornbills observed in a group was four individuals; solitary individuals were also recorded. They were seen perching, calling, making noise, and foraging in trees of Anagas, Lanite, Gmelina, Cashew, Acacia, Iniam, Taluto, Mango, Kulayan, and Coconut in Omoi, Candez, Kasipulo, Manambaling, Poblacion, Bulalakaw, Luyang, and Aranlegan Area. Some of them were seen flying in Bgy. Poblacion and Bgy. Bohol.

Two nests of the Palawan Hornbill were visited; no eggs nor hatchlings were observed in both nests.



Figure 4. A Palawan Hornbill visiting a nest captured by a camera trap.@KFI

Other wildlife species

Thirty-six (36) species were recorded in Omoi reforestation site while 40 species were recorded from a single-day monitoring in Biodiversity Monitoring System (BMS) stations in the DICH. 19 species were observed in both areas namely: Ashy Drongo, Asian Glossy Starling, Barred Buttonquail, Blue-headed Racket-tail, Dollarbird, Green Imperial Pigeon, Grey-cheeked Bulbul, Hill Mynah, Hooded Pitta, Lovely Sunbird, Monitor Lizard, Olive-winged Bulbul,

Palawan Hornbill, Pink-necked Green-pigeon, Red Junglefowl, Spotted Dove, Spangled Drongo, Squirrel, and Zebra Dove.



Figure 5. A Long-tailed Macaque capture by a camera trap intended for nest monitoring (left); and a Malaysian Box Turtle observed during monitoring (right) .@KFI

III.OTHER HIGHLIGHTS

There are currently 13,711 wildlings in the main nursery after a portion of them died or planted in the reforestation area. Most of the wildlings are Nato, Palomaria, and Baslayan. In Candez satellite nursery, the current number of wildlings (1289) is just five wildlings less compared to the previous month's inventory (1294); these five wildlings died during the month. The latter nursery houses four species: Bolabog, Baslayan, Magabo, and Nato. There are currently 1324 wildlings in Manambaling satellite nursery from five species including Baslayan, Bolabog, Bunog, Magabo, and Palomaria. No wildlings are present in the growth chamber.



Figure 6. Regular activities in the nursery including cleaning and transferring of wildlings .@KFI

A total of 2949 wildlings was planted in the Omoi (1390) and Candez (1244) reforestation area; this is the first tree-planting activity following months of dry season. Ten species were planted in which the most planted wildlings are Nato (761) and Baslayan (665). The total rainfall observed in Candez was 263mm, in Omoi was 315mm, and in Lagan was 61mm. This month experience the greatest record of rainfall so far this year which enabled our wildlife wardens to continue in the tree-planting activity.



Figure 7. Planting of wildlings in the reforestation area.@KFI

Distribution of housing aid for victims of Typhoon Odette in the island continued for the month. As of this month, a total of 1070 galvanized iron sheets (yero) and 930 kilos of nails were distributed to residents of Bgys. Bacao, Calasag, Catep, Poblacion, San Juan, and Sto. Tomas.

Meanwhile, materials and supplies for the repair of the Katala Environmental Education Center (KEEC) in Dumaran Island has started. The LGU Dumaran and KFI jointly put up funds to repair the said center.



Figure 8. Transport of GI sheets (yero) for the repair of the KEEC in Dumaran Island @KFI

IV. ISSUES, CONSTRAINTS, AND ACTIONS TAKEN AND OTHER CONCERNS

Typhoon Odette greatly affected the breeding activities of the Philippine Cockatoo and the Palawan Hornbill on site. While some nest trees remain intact, food sources were meager during the height of the normal breeding season as the dry months continued. Our monitoring continues and hopeful that slowly the vegetation recovers fast and sooner. While there are indications of occupation in some nests until this late, we persist on checking them regularly.

With the change in the local administration in Dumaran, we are hoping to continue the fruitful endeavors on the island in partnership with the municipal and barangay government units. 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.

ACKNOWLEDGEMENT

Thank you very much to the LGU-Dumaran through the leadership of Mayor Arnel Caabay, Vice Mayor Publico 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:



References

- Critchlow, R., Plumptre, A.J., Alidria, B., Nsubuga, M., Driciru, M., Rwetsiba, A., Wanyama, F., and Beale, C.M. (2017). Improving Law-Enforcement Effectiveness and Efficiency in Protected Areas Using Ranger-collected Monitoring Data. *Conservation Letters* 10, 572-580.
- IUCN (2019). IUCN Red List of Threatened Species. Version 2019.1. (www.iucnredlist.org).
- Teacher, A.G.F., Griffiths, D.J., Hodgson, D.J., and Inger, R. (2013). Smartphones in ecology and evolution: a guide for the app-rehensive. *Ecology and Evolution* 3, 5268-5278.

KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

May 2022 SUMMARY
IPPF-PPC, Palawan



13

Bilang ng nagawang
patrolya



394.05

Kabuuang kilometrong naabot ng
patrolya



153.49

Kabuuang oras ng patrolya



5

Bilang ng illegal na
aktibidades



0

Bilang ng naaresto



1497

Bilang ng halaman sa nursery



48

Pinakamataas na bilang sa
tulugan ng Katala



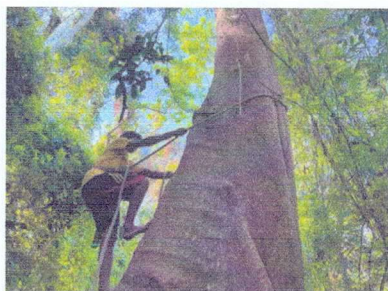
3

Pinakamataas na
grupo ng Talusi na nakita



6

Pinakamataas na bilang ng
katala sa kinakainan



Bilang ng pugad na may in-
dikasyon ng cavity nester

11

10



Bilang ng inakay ng Katala
at iba pang cavity nester



09675176935



048-434-7693



kficacatua2016@gmail.com





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

May 2022

Prepared by:

Matt Brian P. Ong, Vicente Abendan Jr., Peter Widmann and Indira D.L. Widmann

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-Banca. 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

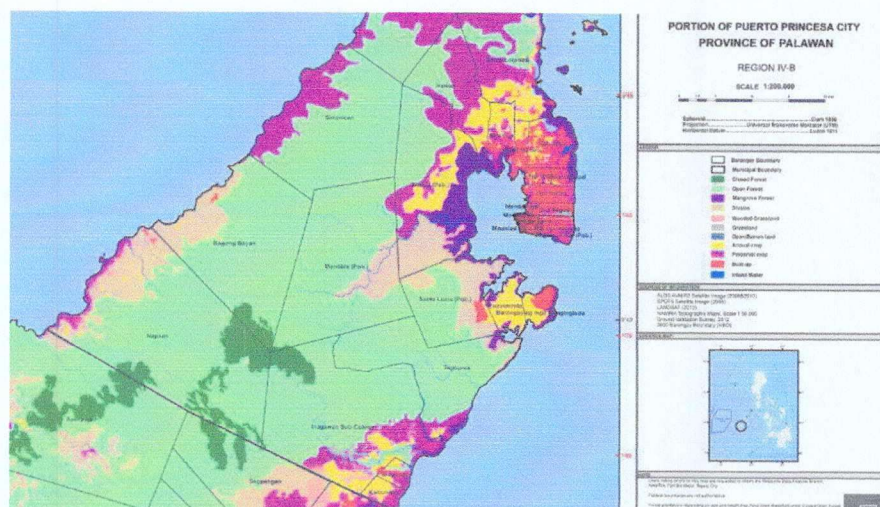


Figure 1. Land use of southern Puerto Princesa, including IPPF according to NAMRIA. Large areas were classified as open forest (bright green signature); this is not in line with observations on site, where large areas of closed forests were recorded particularly in portions of Iwahig, Tagburus ("Zigzag")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

partially in the compound of the Western Command (WESCOM) and Bgy. Banca-Banca. 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 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 **394.05km in May**. Please refer to the list of team members on the last page.

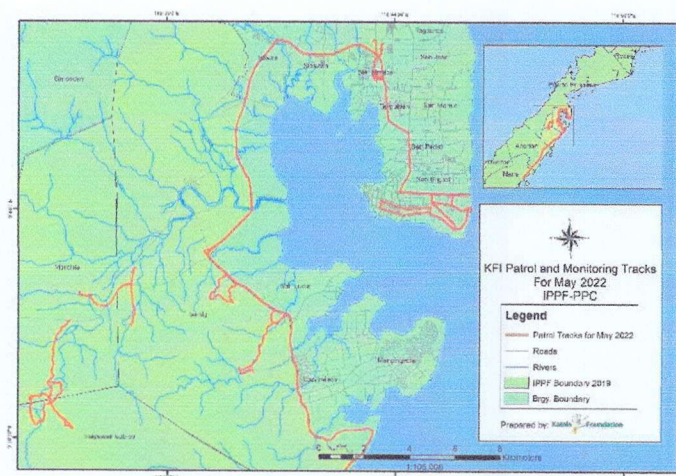


Figure 2. Patrol tracks for May 2022 ©KFI

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 48, while there are no roosting cockatoos in the Montible roost site. As daytime breaks (5:20 am-5:45 pm), cockatoos in the city were observed foraging Pagatpat and Malunggay before dispersing in different parts of the city. In San Miguel, cockatoos were observed flying towards Cabiguen St. heading towards Robinsons area. We noted that Taluto, Malabulak, and Banaran are now 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.
- The composite team of KFI, DENR, and wildlife wardens conducted a seven-day nest monitoring and habitat assessment in Malabo, Tagtalaba, Menor, Sta. Lucia, and Luzviminda forests. Nine nest trees and six potential nest trees were visited/discovered for the month. Out of the six potential nest trees, three were confirmed to have eggs or hatchlings of Philippine cockatoos and Blue-naped parrots, while the other three indicate nest activity such as presence of feces and feathers. All potential nest trees were in Montible area, where the KFI staff camped for three days to search for other possible nest cavities. As of May, we have recorded 12 eggs of the Philippine cockatoo; five hatched, two remaining eggs, and five were rotten or missing. Meanwhile, one of the five hatchlings was rescued due to a potential poaching incident. At the same time, the other four will be ringed, and biometric data will be collected on subsequent monitoring since the hatchlings were estimated to be 3-7 days old. Other cavity nesters recorded for this year's breeding season are the Blue-naped parrot with four hatchlings, two of which were possibly poached, Hill myna with three eggs. However, two failed to hatch, while a Dollarbird was also recorded, but the egg was believed to be predated or was dropped from the nest tree.



Figure 3. Two hatchlings of Philippine cockatoo in Sta. Lucia (left) and the rescued cockatoo in Luzviminda from potential poaching due to indications on the ground. (right) @KFI

- *Observation of wildlife and other cavity nesters monitoring.* At least three Palawan Hornbills and eight Blue-naped parrots were seen foraging in Malabo Forest; we also recorded a Blue-headed racket-tail in inside the Montible sub-colony and in Tagatalaba River. Other avian species recorded in May include tracks of Palawan peacock pheasant, Red-headed Flameback, 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, Grey-capped Emerald dove, Hooded pitta, and Blyth's frogmouth. Non-avian species include Palawan-Flying Squirrel, Palawan Stink badger, Palawan bearded pig, Palawan porcupine (road kill), Schultze's Pit Viper, Red-tailed green rat snake, and a Paradise tree snake.



Figure 4. Schultze's Pit Viper (left) and Blyth's frogmouth (right) documented during patrols @KFI

B. THREAT OBSERVATIONS

In Luzviminda, encroachment remains prominent during our visit, two trees were cut down, and a charcoal pit was seen operating, but no individuals were seen in the area. Meanwhile, near the nest tree, we observed the footprints of a possible poacher. We saw signs that the nest tree was climbed prior to our monitoring upon our arrival at the nest tree. The team decided to rescue the Philippine cockatoo hatchling, and it was immediately transported to our rescue center in Narra, Palawan after securing a transport certificate from the PCSDS. In the same area, we noted that the two hatchlings of the Blue-naped parrot were poached in a known nest tree; we also saw footprints at the base of the nest tree that indicates that the poachers climbed the tree just minutes before our arrival. Some snares for peacocks were also seen along the trails and we destroyed them immediately.

In Sta. Lucia and Montible, snares were also present; The team disarmed and collected some snares where tracks of wild pigs, porcupines, and peacocks were seen. Meanwhile, we saw one person in Malabo Forest shaping rattan peel; we estimated his product to be at least 30 kilos. He was already in the area for 20 days and had constructed a small hut in the area. In Sta. Lucia, while waiting for our transport vehicle, we encountered at least seven individuals that were encroaching in the mangrove area. The anti-squatting office of the city of Puerto Princesa immediately demolishes the shanties in the area as we observed. A certain Primativa Cuyos was pointed out as the instigator of the encroachment. She was also allegedly collecting fees/donations amounting to P25,000 for each lot.

IV. ISSUES, CONSTRAINTS, AND ACTIONS TAKEN

- During the monitoring, we observed several illegally cut trees. We hope these cases were reported by our fellow team members from the DENR and PCSDS who joined the said monitoring.

- 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.
- Scarcity of active nest trees, as of this month, only six nest trees of the Philippine cockatoos were active; We have been able to identify four new nest trees this month nevertheless search for new nest trees will still be scheduled for next month in IPPF.

V. 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 harbour more biodiversity than montane forests; thus, they should be protected against encroachment and further destruction.

ACKNOWLEDGEMENT

We are grateful and appreciative to our partners from the DENR-CENRO Puerto Princesa City through CENRO Office and Palawan Council for Sustainable Development Staff (PCSDS) through Atty. Matta, Western Command, and Iwahig Prison and Penal Farm (IPPF) through CSupt. Joel R. Calvelo for their unrelenting support.

We also appreciate the help of Mr. Jessie Escandalio and Rogelio Abison of DENR and CTOIII Earl Jude A. Arias from the IPPF. We also want to thank those community members who send us their cockatoo sightings in the city.

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!

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



References

- Critchlow, R., Plumptre, A.J., Alidria, B., Nsubuga, M., Driciru, M., Rwetsiba, A., Wanyama, F., and Beale, C.M. (2017). Improving Law-Enforcement Effectiveness and Efficiency in Protected Areas Using Ranger-collected Monitoring Data. *Conservation Letters* 10, 572-580.
- IUCN (2019). IUCN Red List of Threatened Species. Version 2019.1. (www.iucnredlist.org).
- Teacher, A.G.F., Griffiths, D.J., Hodgson, D.J., and Inger, R. (2013). Smartphones in ecology and evolution: a guide for the app-rehensive. *Ecology and Evolution* 3, 5268-5278.



Figure 6. Signs of nest activity in one of the potential nest trees found in Malabo Forest (top), Charcoal pits and snares seen in Luzviminda Forest that were destroyed (middle), and rattan collector found in Malabo Forest (bottom). ©MBong, KFI



Figure 5. Rescued cockatoo from Luzviminda are now rehabilitated at the KI in Narra for eventual release (top), snapshots during the monitoring in Malabo Forest (middle), and some species captured from our camera traps in Malabo Forest (bottom) ©MBong, KFI