



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

December 20, 2022

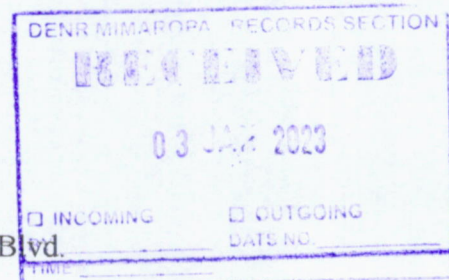
MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA
1515 DENR By the Bay Building, Roxas Blvd.
Barangay 668, Ermita, Manila

THRU : The OIC, ARD for Technical Services

FROM : The Provincial Environment and
Natural Resources Officer

SUBJECT : **PCCP PATROL REPORTS IN FOUR PROJECT SITES FOR THE
MONTH OF SEPTEMBER 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 month of September CY 2022 to wit:

1. Dumaran Island Critical Habitat, Dumaran, 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.

“For the PENRO”

RHODORA B. UBANI

Supervising ECOMS/CDS Chief
In charge, Office of the PENRO



DENR-PALAWAN
PENRO-RECORDS
RELEASED
By [signature]
Date: 21 DEC 2022 22-3440



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

PCCP Patrol Reports for September to October 2022

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
Mon, Dec 19, 2022 at 12:05 PM
BY:
DATE: R-12022-22-11509

Dear PENRO Cayatoc:

We furnish herewith our September 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 furnish herewith our October 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

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 PEOPLE

6 attachments

- Pandanan-SEPT PATROL REPORT-2022.pdf**
1362K
- Dumarán-PATROL REPORT- September 2022.pdf**
3213K
- Rasa PATROL_REPORT OCTOBER 2022.pdf**
2605K
- Rasa PATROL_REPORT SEPTEMBER 2022.pdf**
3823K
- Dumarán-PATROL REPORT- October 2022.pdf**
2600K
- IPPF Septmber-October 2022 PATROL REPORT.pdf**
5719K

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



21

**Bilang ng nagawang
patrolya**



0

**Bilang ng illegal na
kailangang aksyunan**



387

**Kabuuang kilometrong naabot
ng patrolya**



0

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



76.5

**Kabuuang oras ng
patrolya**



0

Bilang ng naaresto



205

**Pinakamataas na bilang sa
tulugan ng Katala**



32

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



124

**Pinakamataas na bilang
ng Katala sa kinakainan**



11

Uri ng halamang namumunga



09675176935



048-434-7693



kficacatua2016@gmail.com

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

SEPTEMBER 2022

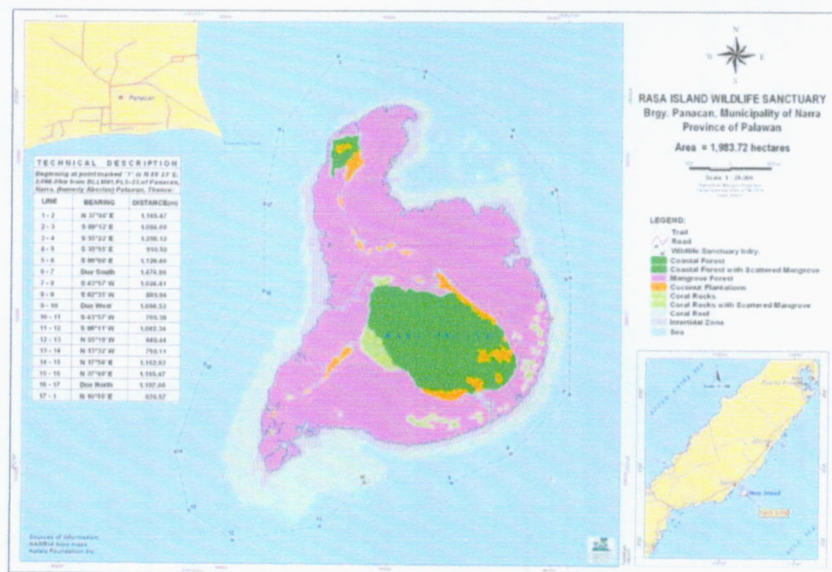
Prepared by:

Anna Rose Agullo, Mark Quinit, 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 km² land area situated in the Sulu Sea, just offshore of the Municipality of Narra, Palawan, Philippines (Fig. 1). About 1.75 km² are covered with coastal forest, mangrove (5.60 km²), cultivated areas (predominantly coconut; 0.39 km²), 0.60 km² are barren or sparsely vegetated sand and coral outcrops. 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 BATAAC, MARIO BATAAC, LUCITO DANGIS, Veronica Marcelo, Danilo Villaruz, Monico Beleg and Antonio Marcelo. Wardens' teams covered **387kms** of nest checking, wildlife monitoring and patrol around Rasa. Total of precipitation in September 2022: **63mm** on Rasa, **69.1mm** at Panacan 2 and **103mm** on Katala Institute.

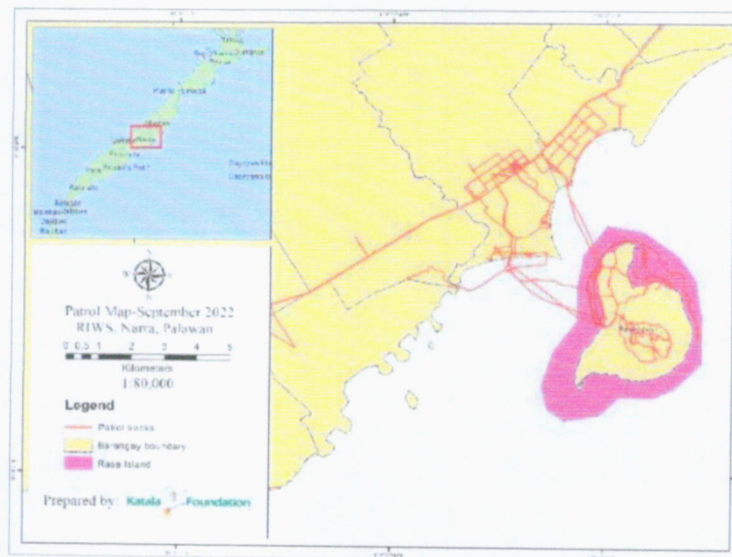


Figure 2. Patrol tracks in red marks in August 2022

Six camera traps were deployed around Rasa while two were at hanging aviary. 15 data loggers were still mounted on Rasa.

III. PATROL OBSERVATIONS

A. WILDLIFE OBSERVATIONS

In September 2022, fledglings were observed with adult cockatoos often during wildlife monitoring. **205 individuals** were recorded on Sept. 15 in the afternoon at traditional roost site. Cockatoos were observed sleeping on nest trees at western part of Rasa with a total of 9 individuals while 156ind were roosting on traditional roost site on Sept. 12. Meanwhile, on Sept. 17, 5:57-7:00PM, Loreto noted 6ind sleeping on branch of Baginsurod tree at Alisto area. Cockatoos left the area at 5:58AM heading Gaspar area. He also observed roosting 10 cockatoos on another nest tree at eastern Rasa on Sept. 23 at 6:20PM. No roosting cockatoos at Borbon station during schedules of roost counting.

This month, the highest foraging count is **124 individuals** alone at Borbon, Panacan station flying back from mainland to Rasa on Sept. 27, 6:30-9:46AM. 44ind were the highest foraging at Marcelo area which was also counted on Sept. 27 in the morning. Earlier on Sept. 2, a total of 67 cockatoos were recorded at Borbon and Parco, Antipuluan station with 46 and 21ind respectively. On Sept. 23, One cockatoo was foraging at Princess Urduja while on Sept. 30, a flock was recorded feeding near Parco, Antipuluan, Narra (Fig. 3). Earliest and latest foraging recorded at 6:08AM and 5:05pm at Parco and Borbon station respectively.

Other noted species in this month on Rasa were Nicobar Pigeon, Red-headed Flameback/ Woodpecker, Tabon Scrubfowl, Blue-headed Racquet-tail (BHRT), Egret sp., Western Osprey, Stork-billed Kingfisher, Oriental Dwarf-kingfisher, Great-billed Heron, Rufous Night-heron, Changeable Hawk-eagle, White bellied sea-eagle, Whimbrel, Sunbird sp., Grey-cheeked Bulbul, Large-tailed Night-jar, Green Imperial-Pigeon, Reef Egret, Greater Coucal, Pipit, Blue-Paradise Flycatcher/ Black-naped Monarch, Swiftlet sp., Ashy Drongo, White-vented Shama, Fruit-dove sp., Emerald Dove, Common Koel, Asian Glossy Starling, Rufous-tailed Tailor-bird, Dollarbird, and Zebra Dove. Monitor Lizard were frequently encountered. Wardens observed roosting site of Rufous Night-Heron (RHN) on coastal forest of Rasa on Sept. 1. Feces were noted on the ground under the trees (Fig. 4).

Spot-throated Flameback was recorded on one nest in August 30, 2022 at 9:43AM through camera trap (Fig. 5). On July 16, 2022 at 9:00AM, one cockatoo fledgling was peeking from a nest hole while an adult one was guarding (Fig. 6). Cockatoos with gold rings on left tarsus were spotted on Pagatpat nest tree which were banded in 2017 on July 15 and 17, 2022 (Fig. 7). Meanwhile, on Sept. 5, four cockatoos were spotted around Pagatpat nest on western Rasa (Fig. 8). Sleeping cockatoos were also recorded on Pagatpat nest through camera footages from August 28, 2022 to September 4, 2022 (Fig. 9).



Figure 3. Cockatoo feeds on Malunggay at Princess Urduja (left); while a flock was feeding near Parco, Antipuluan (right) ©KFI



Figure 4. Roost site of Rufous Night-Heron in coastal forest of Rasa monitored on Sept. 1 (left); Feces of RHN on ground (right) ©KFI



Figure 5. Spot-throated Flameback perching on Pagatpat nest on Aug. 30, 2022



Figure 6. Cockatoo fledgling was peeking on nest hole of Pagatpat nest tree on Rasa while the adult guided on July 16, 2022 at 9:00AM



Figure 7. Cockatoo with gold ring on left tarsus and brown/gold ring on right tarsus on July 15, 2022 on Pagatpat nest tree on Rasa (left) while on July 17, cockatoo with gold ring on left tarsus and silver/yellow/y-green ring on right tarsus was also observed on the same tree (right)



Figure 8. Four cockatoos spotted around Pagatpat nest tree on western Rasa on Sept. 5, 2022



Figure 9. Roosting cockatoos on Pagatpat nest tree from August 27, 2022 to September 4, 2022

Release of rescued Philippine Cockatoos

On Sept. 19, Angel (DENR-70-22) from Rasa and Anna (DENR-131-22) from IPPF were transferred back to Katala Institute from Rasa. The two birds were monitored weak and with decreased weight after three weeks of observation in hanging aviary. Mites were also observed on both. They were under appropriate care in bird clinic to gain weight and strength. After more observations, the two will be transferred back to Rasa for soft release.



Figure 10. Checking on cockatoos DENR 131 and 70-22 in Rasa aviary ©KFI

Vegetation assessment

In September 2022, green vegetation was predominant on Rasa both on mangrove and coastal forest (Fig. 11). Among the inventoried food-plant species for cockatoos and other fauna on Rasa, five species were fruiting namely Balete, Ginlialid, Gatasan, Kanumay and Rhizophora sp. Most food-plant species were fruiting abundantly in 2nd quarter of 2022 (Fig. 13). Some other fruiting food-plant species on Rasa were Balindadagat, Magtalisay, Pagatpat, Bogo, Lanete, Tubo bato, and vine sp. (wild orange). Likewise, Malunggay trees were fruiting in abundance at Panacan and Panacan 2, Narra between first and second quarter of the year. Malunggay trees were more fruiting at Villaruz area than on other areas in September 2022 (Fig. 14). Flowering trees and vines on Rasa were Gatasan, Magtalisay, Lanete, Kanumay and Tulang pagi. Less precipitation was noted in the 3rd quarter of than in the previous quarters of 2022 (Fig. 15).

On Sept. 1, dead Gindaon in coastal forest of Rasa fell. It was recorded occupied by cockatoos with two successful fledglings in 2021 (Fig. 12). A beehive was also observed at Alisto area which implied that vegetation on Rasa was fruiting this month (Fig. 12).

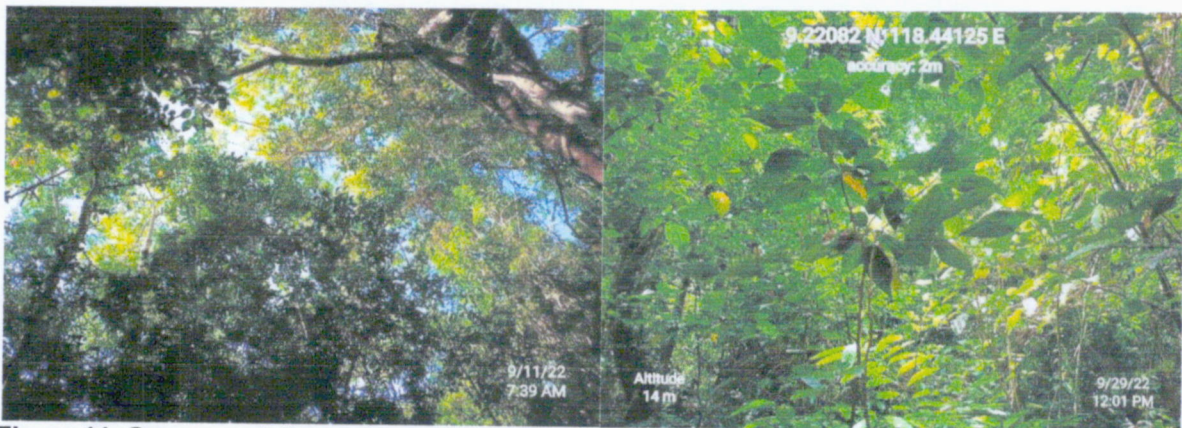


Figure 11. Green vegetation on inner coastal forest on Rasa Island ©KFI



Figure 12. Dead Gindaon on coastal forest of Rasa fell on Sept. 1 (left); Beehive near Favila area ©KFI

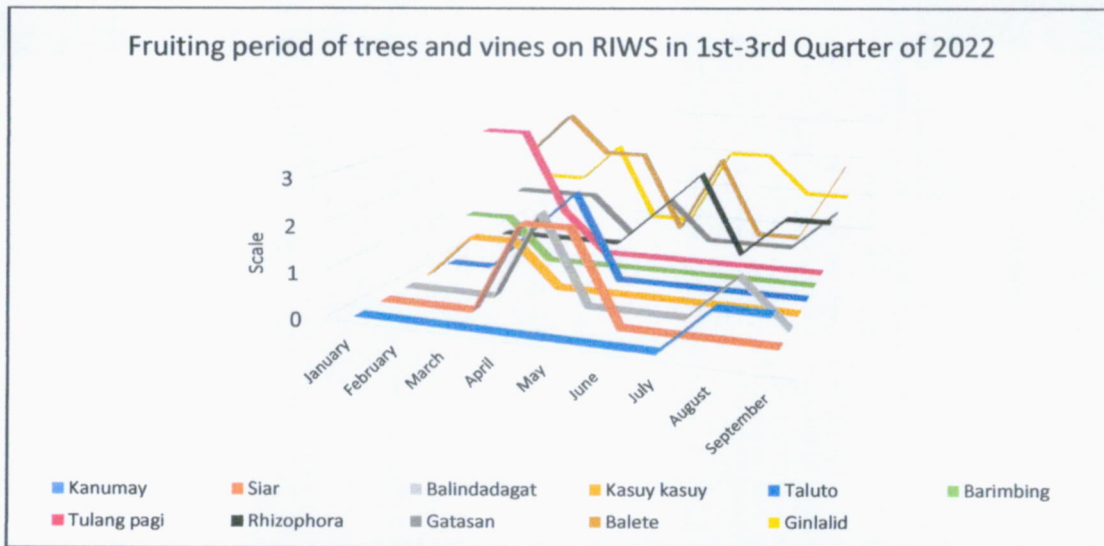


Figure 13. Fruiting period of food-plant species of cockatoos and other fauna on Rasa Island Wildlife Sanctuary (RIWS), Narra, Palawan in September 2022 (scale: 0-no fruit; 3-most)

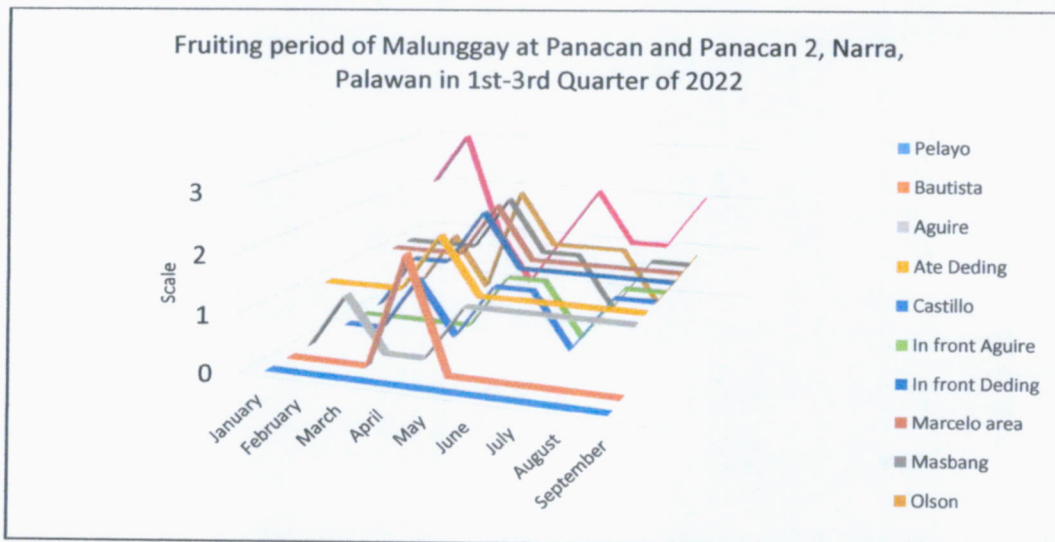


Figure 14. Fruiting period of Malunggay, most preferred food of cockatoos at Panacan and Panacan 2, Narra Palawan

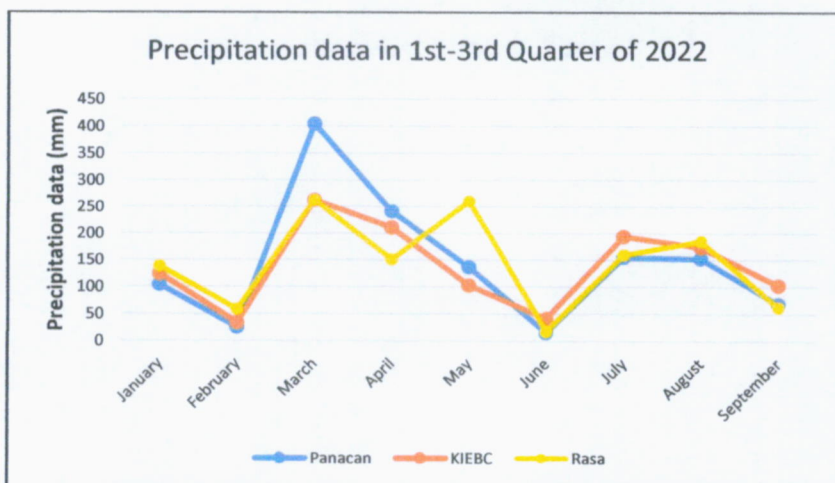


Figure 15. Precipitation data on Panacan 2, KIEBC, Antipuluan and RIWS in 1st to 3rd quarter of 2022

B. THREAT OBSERVATION

No adverse human activities observed on Rasa during monitoring. No expansion was noted on lobster fry at Borbon. Floating cage was still on its former status (Fig. 16).



Figure 16. Lobster fry pens (left) and floating cage (right) at Borbon, Panacan ©KFI

III. OTHER HIGHLIGHTS

Monitoring on coconut plantations on Rasa. On Sept. 20, five persons collected 800kgs of copra from Alisto area in two weeks while on Sept. 24, four persons including Boyet Villarias gathered 4000kgs of copra on Rasa in 24days.

On Sept. 14, Theresa Roessler was glad to see on Rasa Island the Philippine cockatoos, a closer relative of Tanimbar corella which she works for. She shared that she was fascinated by the cockatoos and congratulated the great conservation efforts of KFI. Theresa was assisted by Mr. J. Bautista of Protected Area Management Office (PAMO). Mario joined focus group discussion among coconut plantations claimants on Rasa which was initiated by the PAMO on Sept. 16 at Malinao, Narra (Fig. 17). Around 300ind from LGU-Narra, KFI, NGAs, academe and private sectors in Narra, Palawan participated on International Coastal Clean-up Day on Sept. 17 at the coast of Bgy. Antipuluan (Fig. 17).



Figure 17. PAMO conducts talk with Rasa claimants at Bgy. Malinao (left); BJMP personnel with KFI staff collect plastics at Antipuluan coast in celebration of International Coastal Clean-up (right) ©KFI

IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN

Owners of lobster traps at Borbon, Panacan must be continuously informed to not encroach inside Rasa boundary. Prescriptions for each zonation must be disseminated by PAO and with other PAMB members to encourage more active role in protection.

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 Calso Jr., 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 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:



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

September 2022 SUMMARY Dumaran Island Critical Habitat Dumaran, Palawan



26

Bilang ng nagawang patrolya



250.63

Kabuuang kilometrong naabot ng patrolya



60.54

Kabuuang oras ng patrolya



5,614

Bilang ng natanim



5

Bilang ng nagawang ANB



0

Bilang ng ilegal na gawain na naobserba



25

Pinakamataas na bilang sa tulugan ng Katala



3

Pinakamataas na grupong Talusi na nakita



45

Nakitang namumunga at namumulaklak na puno





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

September 2022

Prepared by:

Michael F. Plazos, Lemuel Pabico, Joshuael Nuñez, 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).



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

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

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

KFI team regular patrols were conducted in the forested area inside and outside DICH with the following team members: **Michael Plazos, Nestor Arzaga, Orlando Balmonte, Felipe Condesa, Eddie Derecho, Angelu Paduga, and volunteers Domingo Sy, Andres Aurelio, Rodolfo Comedia and Miguel Nadayao Jr.** They have recorded fruiting trees, threats, and other wildlife observed.

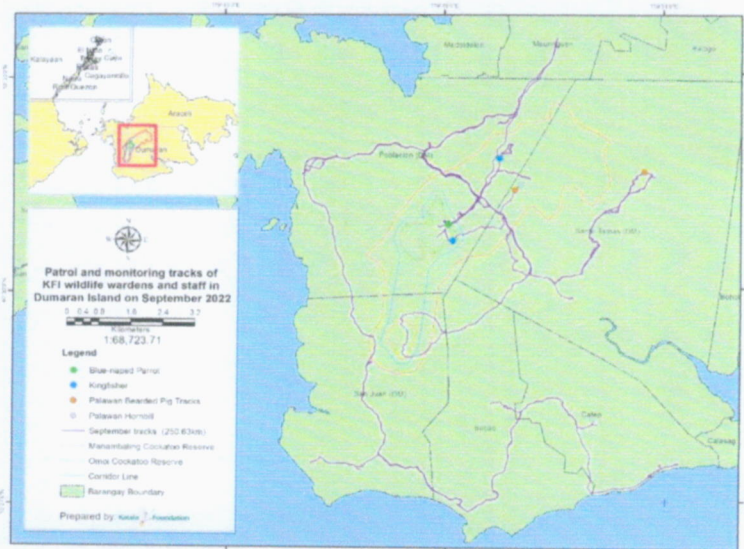


Figure 2. Patrol tracks and wildlife observed during monitoring for the month of September @KFI

Suitable driftwoods to be used as artificial nest boxes (ANB) were also collected if available. Nest monitoring and checking were also conducted. Monthly patrols covered 250.63km distance from a total of 26 patrols and 60.54 hours within the Omoi and Manambaling Protected Areas, forested area within Bulalakaw, Camaya, Candez, Kasipulo, Bacao, Catep, and San Juan. On Sept 19, KFI staff and wardens verified a report from MENRO of a chainsaw operation at Sitio Kasipulo to Baleteng Bilog. They conducted patrolling in the area but no cut tree nor chainsaw marks were observed.

Regular monitoring in the roost was conducted for the month. Thirteen to 25 cockatoos were observed at the site. The maximum number of cockatoos were usually observed in the roost every morning (16 times) and afternoon (17 times). Cloudy and fair weather was observed with three days of rainfall.

Synchronized counting of cockatoos were also conducted this 20th of September at Bgy. San Juan Proper, So. Lagan, So. Manangbaling, Omoi, Kasipulo, Salvacion, Poblacion, Aranlegan, and Bgy. Bacao. Two cockatoos were seen perched near ANB 17 in Manambaling, four cockatoos were recorded in Omoi flying from Candez to Bulalakaw Area. In Bacao, ten cockatoos were observed feeding on Malunggay tress while 18 cockatoos from the roosting site in Lagan flew to the northeast direction.



Figure 3. Roosting site of the Philippine Cockatoo in Dumaran Island (left); roosting cockatoos perched on a coconut tree (right) @KFI

PATROL OBSERVATIONS

Supplementation of natural population

Released birds were seldom observed during monitoring and were assumed to assimilate completely with the wild population. Five ANBs made from a combination of plywood and driftwood were constructed this month; finishing will be done and will be installed once fully furnished.



Figure 4. A visiting cockatoo was captured by camera trap in one of the previously installed ANB @KFI



Figure 5. ANB construction for the cockatoos for the next breeding seasons @KFI

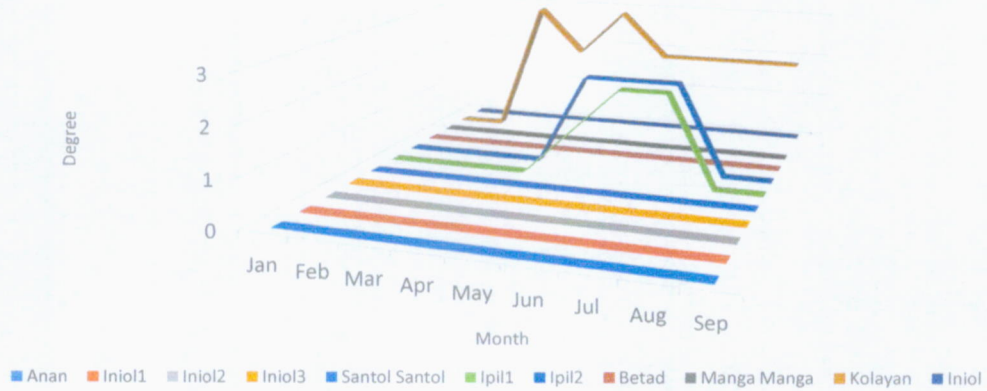
Foraging

There were four to 15 cockatoos seen feeding on Pagatpat and Malunggay trees at Bgy. Bacao around 9:00 to 11:00AM.

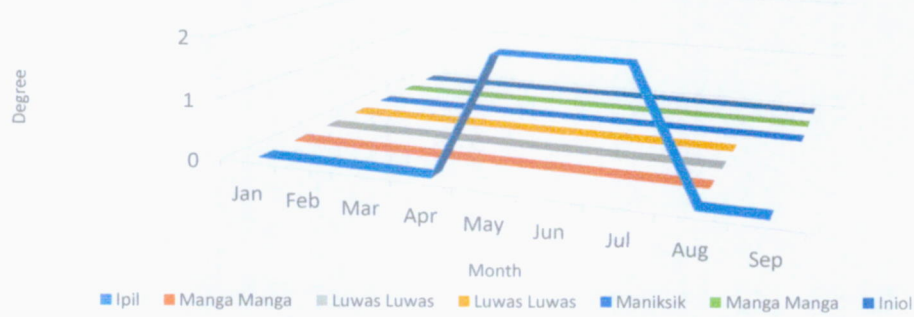
Forty- five food-providing trees were recorded during this month. These includes Agbo, Amumusing Amuraon, Anagas, Anan, Antipulo, Apatot, Balite, Banaba, Banga, Bangkal, Bangkudo, Barok, Basa, Beri, Binatalan, Binunga,,Bunog, Bunuang, Bunot-Bunot, Catmon, Dulo, Kalampinay, Kirag-Kirag, Kulayan, Kuliat, Imamangal, Iniam, Ipil, Lanite, Lapnog, Luwas-Luwas, Malunggay Marango, Mulawin, Narra, Orabsik, Pagatpat, Panapuan, Saleng, Somalagen, Tagalilong, Tagpe, Talisay, and Tebey.

There were no fruiting activity this month similar to August in Omoi, Candez, and Manambaling except for a single Kulayan Tree in Omoi. In Lagan, all Pagatpat trees are fruiting except for a single tree.

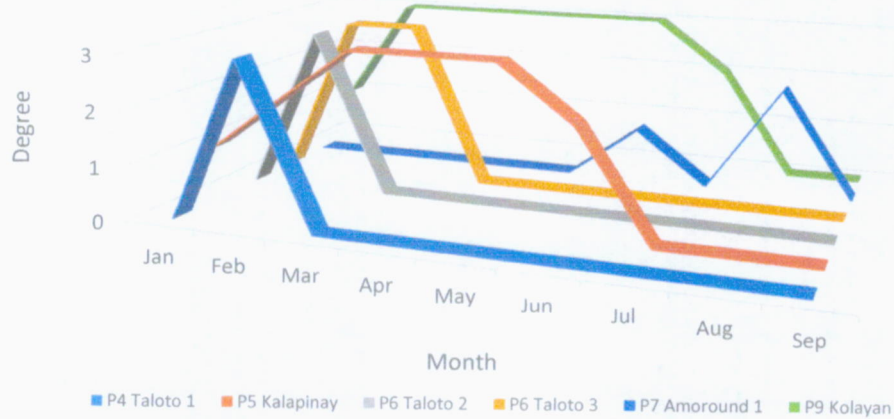
Fruiting period of trees in Omoi (2022)



Fruiting period of trees in Candez, Dumarán (2022)



Fruiting period of trees in Manambaling, Dumarán (2022)



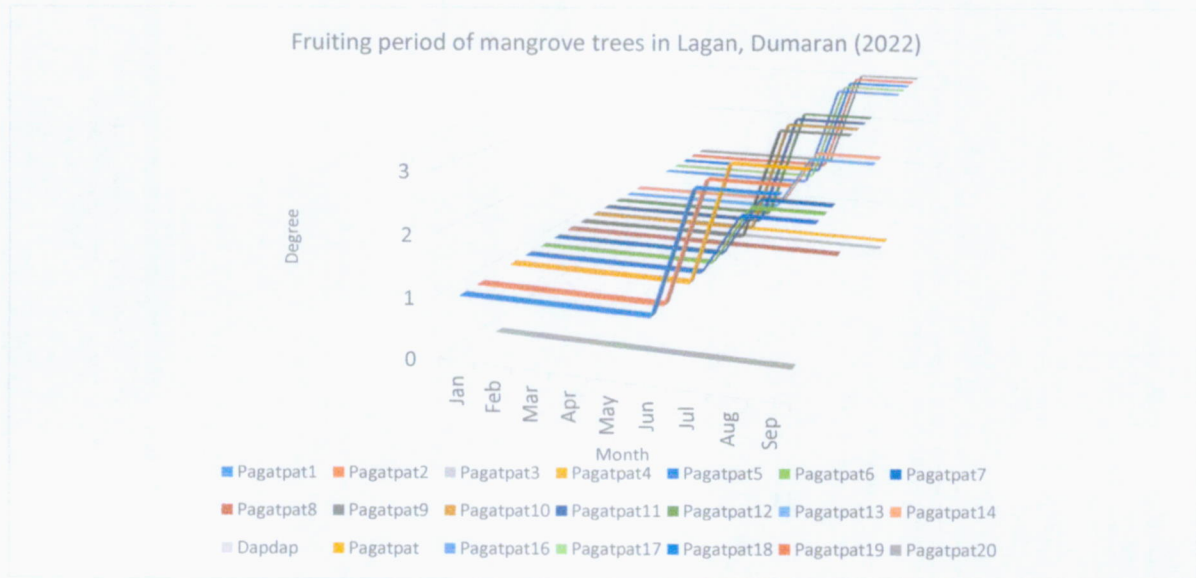


Figure 6. Fruiting activity in phenology plots of Dumarán Island @KFI

In terms of flowering, only a single Kulayan tree is flowering in Omoi, a single Amuraon tree in Manambaling, and no flowering trees in Candez. There is minimal flowering activity in all plots of Lagan. There is leaf growth/cessation in all plots except in Lagan.

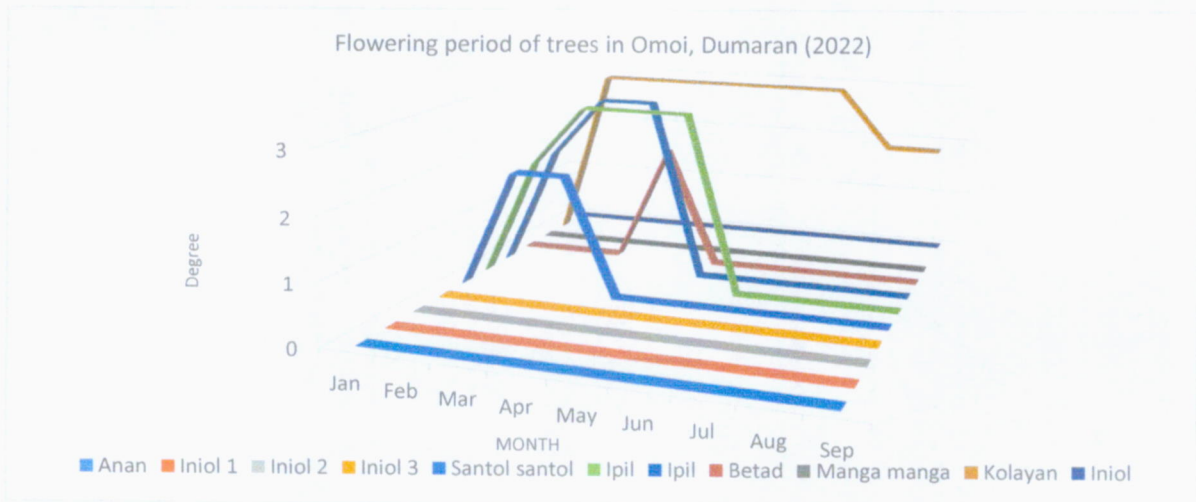




Figure 7. Flowering activity in phenology plots in Dumarán Island @KFI

Palawan Hornbill monitoring

There were one to three hornbills observed during monitoring on seven areas in the island namely: Omoi, Candez, Kasipulo, Manangbaling, Baing, Luyang, Bacao, and Catep. They were observed perching and making noise on Kulayan, Saleng, Balite, Bangkal, Narra, Alalod,

Anagas and Cashew trees, passing on coconut plantation, and feeding on Imamangal fruiting tree. During the synchronized counting of cockatoos, two hornbills were observed in Aranlegan going to Poblacion while two hornbills were observed perched on a Balite Tree in Omoi.



Figure 8. Perched Palawan Hornbills observed during monitoring (top); a visiting hornbill in one of the known nest trees (bottom) ©KFI

Other wildlife species

Forty-four species were observed in the Biodiversity Monitoring System (BMS) stations in DICH while 38 species were recorded at the reforestation site. Twenty species were recorded in both areas and these are: Palawan Hornbill, Common Iora, Blue-naped Parrot, Hooded Pitta, Spotted Dove, Palawan Monitor Lizard, Dollar bird, Black-naped Oriole, Storked-billed Kingfisher, Hill myna, Asian Glossy Starling, Red Jungle-fowl, Pink Necked-green Pigeon, Blue-Headed Racquet-tail, Zebra Dove, Barred Button Quail, Yellow-throated Leafbird, Lovely Sunbird, Bar-bellied Cuckoo Shrike.





Figure 9. Birds recorded during monitoring: Spot-throated Woodpecker (top-left); Blue-naped Parrot (top-right); Chestnut Malkoha (bottom-left); and Rufous-crowned Bee-eater (bottom-right) ©KFI

III. OTHER HIGHLIGHTS

There are 10,278 wildlings in the main nursery after 310 were collected while 825 and 109 wildlings were released for planting and died respectively. Most of the wildlings in the main nursery are Palomaria, Nato and Lamoto. The same number of wildlings were recorded in Candez satellite nursery (1289); no wildlings died nor were released in the said nursery. In Manambaling satellite nursery there are 1,258 wildlings after 94 wildlings were collected; majority of wildlings in the latter nursery are Palomaria. There are no wildlings in the growth chamber. Regular activities in the nursery e.g., potting, watering, and cleaning, were continuous.



Figure 10. Regular activities conducted in the nursery for the month of September ©KFI

Highest rainfall record was recorded in Omoi monitoring station i.e., 232mm followed by Candez monitoring station i.e., 220mm. Lagan experienced the least rainfall, with only 91mm rainfall.



Figure 11. Rainfall data of Dumaran Island from January to September 2022 ©KFI

A total of 5,614 wildlings were planted for the month of September in Omoi reforestation area. There were 13 species of native trees planted for these months: Nato, Palomaria, Baslayan, Ipil, Narra, Domalta, Lamoto, Iniol, Kulayan, Ipil, Somalagen, Botabon, and Bolabog. Most of the trees planted were Nato (1617) and Palomaria (1100). The wardens also assisted and participated in the LGU's tree planting activity as part of the Civil Service Week Celebration at Aranlegan.



Figure 12. Tree planting activity with the LGU (top and bottom-left); and wildlings donated for the activity ©KFI

KFI participated in the regular ECAN board meeting last September 2, 2022. We have presented our position regarding the ECAN zonation of DICH and other areas of concern in the island i.e., foraging areas of wildlife in South Dumarán and classifying the corridor between the two cockatoo reserve as restricted-use area. We were also called by the Sanggunian Bayan to present said position paper during their regular hearing last September 12, 2022. We hope that the LGU and other concerned agencies will bring their best foot forward in ensuring the protection of wildlife and their habitats in Dumarán.



Figure 13. ECAN board meeting and SB hearing for the updating of the terrestrial ECAN map of Dumarán ©KFI

The distribution of housing aid for the victims of Typhoon Odette was concluded this month. Monitoring of each household will be continually moving forward.

Requirements for accreditation were prepared pursuant to DILG Memorandum Circular 2022-083. This accreditation allows then our membership to local bodies e.g. Municipal Development Council, etc.

Construction of the KEEC is ongoing. The construction of the KEEC is almost complete; electrical wiring and the staircase will be installed later this month. We are very grateful to LGU-Dumarán for its financial assistance for the renovation of the KEEC in the same manner we are indebted to the anonymous donor who mainly granted funds for this activity. Lastly our thanks too for individuals and members of ZGAP who contributed as well for the completion of the KEEC.



Figure 14. KEEC construction nearing its completion and minor finishing will be conducted next month ©KFI

IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN

Government should prioritise the protection and maintaining the integrity of remnant forests and critical habitats in Dumarán especially that the area has fragmented and small forest patches remaining. The zonations must also ensure that the plight and right of wildlife are heard. 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 they will not extend inside the DICH especially in the two cockatoo reserves. Reports of illegal activities should always be verified.

Threats to be mitigated by the presence of patrollers include increased forest encroachment, including the creation and widening of logging trails, as well as timber poaching of standing trees outside CH that may span inside. Nest characteristics assessment will also be conducted to compare nests and nest trees over time.

ACKNOWLEDGEMENT

Thank you very much to the LGU-Dumarán through the leadership of the newly-elected Mayor Richard R. Herrera, Vice Mayor Caabay and their able staff, 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 Dumarán: Nestor Arzaga, Orlando Balmonte, Felipe Condesa, Eddie Derecho, Angelu Paduga, and volunteers Domingo Sy, Andres Aurelio, Rodolfo Comedia and Miguel Nadayao Jr. for their services and efforts provided to the KFI-PCCP Dumarán 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 SEPTEMBER 2022 SUMMARY IPPF-PPC, Palawan



11

Bilang ng nagawang patrolya



162.88

Kabuuang kilometrong naabot ng patrolya



29.68

Kabuuang oras ng patrolya



1

Bilang ng illegal na aktibidades



0

Bilang ng naaresto



1662

Bilang ng halaman sa nursery



78

Pinakamataas na bilang sa tulugan ng Katala



3

Pinakamataas na grupo ng Talusi na nakita



16

Pinakamataas na bilang ng katala sa kinakainan



09675176935



048-434-7693



kficacatua2016@gmail.com





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

September 2022

Prepared by:

Matt Brian P. Ong, Vicente Abendan Jr., Joshuael Nuñez, 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. Bancao-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

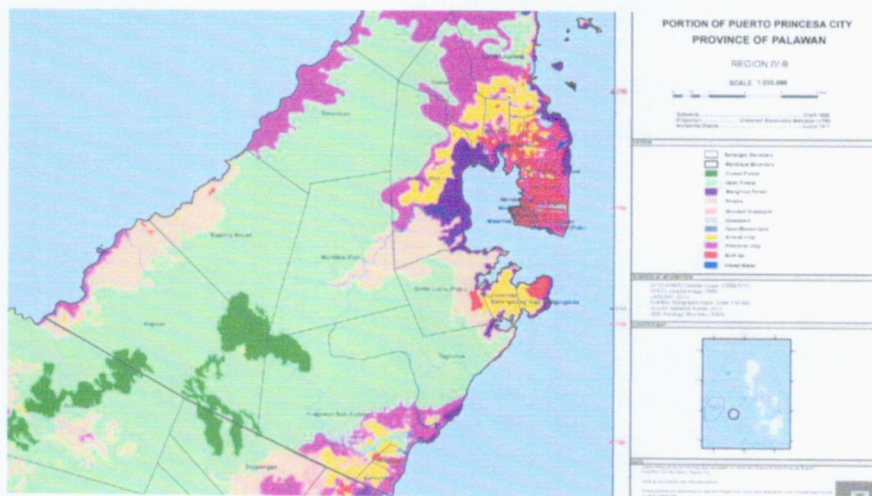


Figure 1. Land use of southern Puerto Princesa, including IPPF according to NAMRIA. Large areas were classified as open forest (bright green signature); this is not in line with observations on site, where large areas of closed forests were recorded particularly in portions of Iwahig, Tagburus ("Zigzag")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

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 them 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, DENR, IPPF personnel, and wildlife wardens conducted habitat and nest monitoring, while other activities were roost and foraging areas monitoring within the city, breeding habitat, and the surroundings of the penal farm. The team covered a total of **162.68 km** in **September**. Please refer to the list of team members on the last page.



Figure 2. Patrol tracks for September 2022 ©KFI

III. PATROL OBSERVATIONS

A. WILDLIFE OBSERVATIONS

- Intensive monitoring in foraging and roosting areas continued.* The team conducted roost monitoring in the city and the penal farm's surroundings. The highest count in the city was 78; at daytime (5:10 am – 5:30 pm), cockatoos were observed preening in the mangrove area before they dispersed to forage in different parts of the city. Meanwhile, in Montible, no roosting cockatoos were observed at the traditional roosting site. Few sightings of cockatoos crossing the Tagtalaba River to Iwahig Central were observed. Concerned citizens also reported some sightings through our social media page. KFI volunteers also reported sightings of Katala in the San Miguel area going to Hartman beach to forage. The team also observed at least five cockatoos hovering in WESCOM area where we reported of a caged cockatoo.
- Habitat monitoring and nest characterization in Montible.* This month, a three-day habitat monitoring and nest characterization was done in Montible. A total of five active nest trees and two potential nest trees were characterized. Tree data such as height, diameter at breast height, and nest hole measurements were collected. A 20 x 20 m quadrangular plot was also established to measure vegetation coverage, the number of stems, woody species, and other parameters for microhabitat data. Meanwhile, newly fledged cockatoos and their parents were seen roosting in their nest trees; the highest number of cockatoos seen in the Malabo Forest was five individuals; others were also observed foraging near their nest trees.



Figure 3. Snapshots during nest characterization of nest trees in Malabo Forest. ©MBong KFI

- Observation of wildlife and other cavity nesters monitoring.* Three Palawan Hornbill were seen perching in km 26 in Montible. Blue-naped parrots were also present in all areas visited for the month; we also recorded a Blue-headed racket-tail inside Iwahig central and in the Montible sub-colony. Other avian species recorded in September include Yellow-throated leafbird, Palawan peacock pheasant (calls), Hill myna, Spot-throated Flameback, Black-headed Bulbul, Palawan Bulbul, Rufous-tailed Tailorbird, Garden Sunbird, Great Slaty Woodpecker, Black-naped Oriole, Common Iora, Palawan Drongo, Oriental Dollarbird, Palawan fairy blue-bird, White-vented Shama, Pink-necked Green-pigeon, and Hooded Pitta. Non-avian species include the Palawan-flying Squirrel, Palawan Tree Squirrel, Palawan Stink badger, Palawan bearded pig (tracks), Palawan porcupine (decayed), and some species of reptiles, including a skink sp., Palawan-monitor Lizard, Two-striped Coral Snake, and Speckle-bellied Keelback.

- Five artificial nest boxes made from plywood and an old tree trunk with a cavity were constructed and repaired by KFI. The said ANBs are ready to be installed within the penal farm to supplement the nest trees that were felled by typhoon Odette last year.
- KFI conducted distance sampling of cavity nesters and other avian species within the penal farm during the reporting period; six transect walks within Montible and Malabo forests were conducted. Out of the six transect walks, 55 stations were established. Some notable species recorded during the sampling are the Palawan hornbill, Palawan Peacock-pheasant, Palawan Bulbul, Yellow-throated Leafbird, and Philippine cockatoo; all endemic to Palawan and the Philippines, respectively.



Figure 4. Palawan island endemics; Two-striped Coral Snake *Calliophis bilineata* (left) and Yellow-throated Leafbird *Chloropsis palawanensis* (right) ©MB.Ong, KFI

B. THREAT OBSERVATIONS

- In Montible, rattan collectors moved to a camp near a known nest tree of Katala. The team was able to talk to one of the collectors and asked them not to disturb and vacate the area as soon as possible.
- The previously reported caged cockatoo in the city was sporadically displayed in the cage. We also noted that some wild cockatoos are flying nearby to check the enclosure.
- Data from threat rates (Fig. 5) show that habitat destruction and persecution continue to exist and are widely practiced in the penal farm and in the city, where kaingin, illegal logging, and encroachment occur year-round. Meanwhile, records of persecution/illegal pet trade were found near the end of the breeding season.

IV. OTHER HIGHLIGHTS

- *Environment and Tourism Sector Development Agenda.* On September 23, KFI participated in a workshop spearheaded by LGU of Puerto Princesa City and USAID. The Cities for Enhanced Governance and Engagement (CHANGE) project of USAID aims to support and strengthen democratic governance in the Philippines. The workshop's main objectives were identifying issues relating to Palawan's environment and tourism sector. The CHANGE project, research, and CSO agenda were also discussed during the workshop. The Palawan State University also presented the curriculum of the new master's degree program (MSc in Environmental Management) offered by the university.
- *PhilSA project.* On September 23, in partnership with Philippine Space Agency, KFI attended the PINAS Palawan workshop. PhilSA presented their projects and data

collection methods using PhilSA's project form and data management. Some basics of GIS, remote sensing analysis, planning, and product enhancement were presented during the workshop. Data allocation and requests can also be sourced via Space Mission Control and Operation Bureau. KFI's representative, Joshuael Nuñez, shared his insights during the workshop with the KFI team in Puerto Princesa. Remote sensing is a big part of biodiversity conservation since it can provide land covers and land use, predict species distribution, map out threat hot spots, and characterize biodiversity directly.

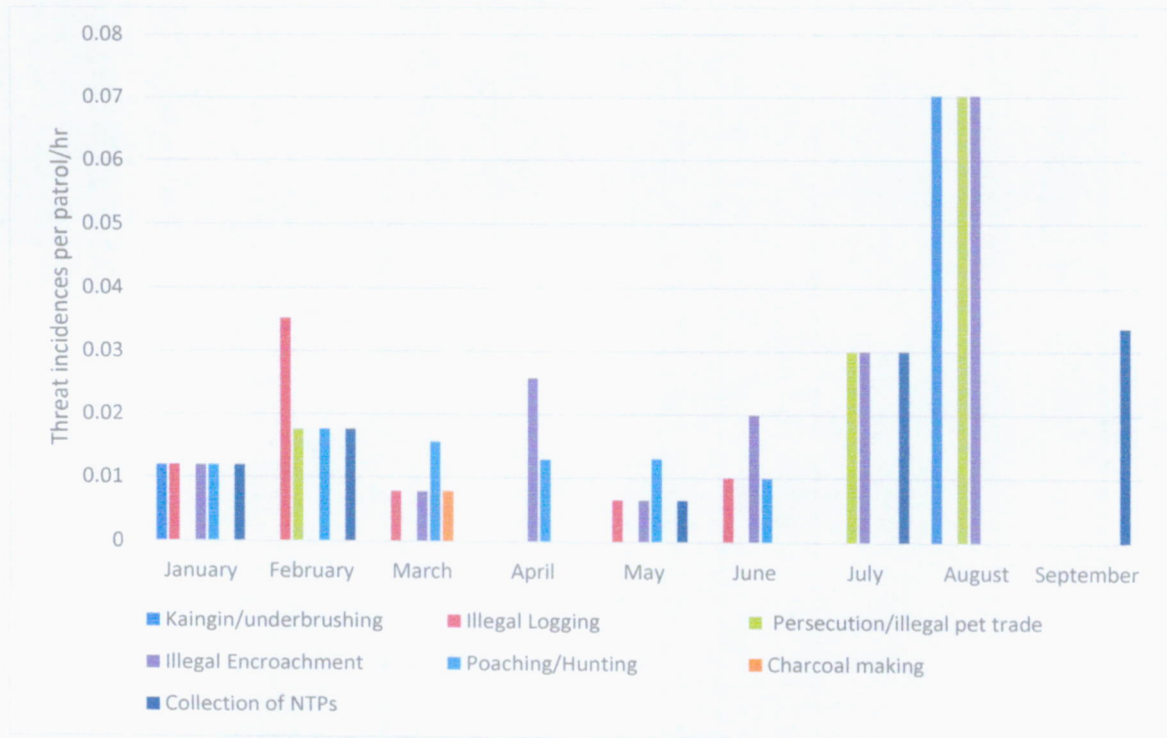


Figure 5. Threat rates data for the first three quarters of 2022.

V. ISSUES, CONSTRAINTS, AND ACTIONS TAKEN

- Increased patrolling in the sites is necessary to avert further destruction of lowland forests. Continued tree planting within these areas is a must.
- Authorities should monitor and regulate rattan collectors in Montible.
- The report of citizens about two cockatoos caged in a house near WESCOM was relayed to PCSDS since July. The latter told us that their operatives visited the area but didn't see the cockatoos. This is contrary to citizens' reports and our visit that confirmed the presence of the birds in the cage. We hope a thorough investigation can be done ASAP so not to discourage citizens from reporting illegal activities.

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'an Mountain Range (VAMR)! Lowland forests harbor 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 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., Plumtre, 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 apprehensive. *Ecology and Evolution* 3, 5268-5278.



Figure 6. Environment and tourism development sector and PhilSA project presentation within the KFI team (top), construction of artificial nest boxes (middle), snapshots from distance sampling in Montible (bottom-left) and a Speckle-bellied Keelback that was seen during the monitoring (bottom-right) ©MBong KFI

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



16

Bilang ng nagawang patrolya



55.6

Kabuuang kilometrong naabot ng patrolya



40

Kabuuang oras ng patrolya



0

Bilang ng illegal na kailangang aksyunan



0

Bilang ng naaresto



10

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



186

Pinakamataas na bilang sa tulugan ng Katala



19

Bilang ng mga naitalang Kalaw/Palawan hornbill



646

Bilang ng nabuhay na tanim sa planting site



19

Bilang ng mga naitalang Blue-naped parrot



1,500

Bilang ng naitalang migratory raptors



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

September 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

Pandanan 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*,

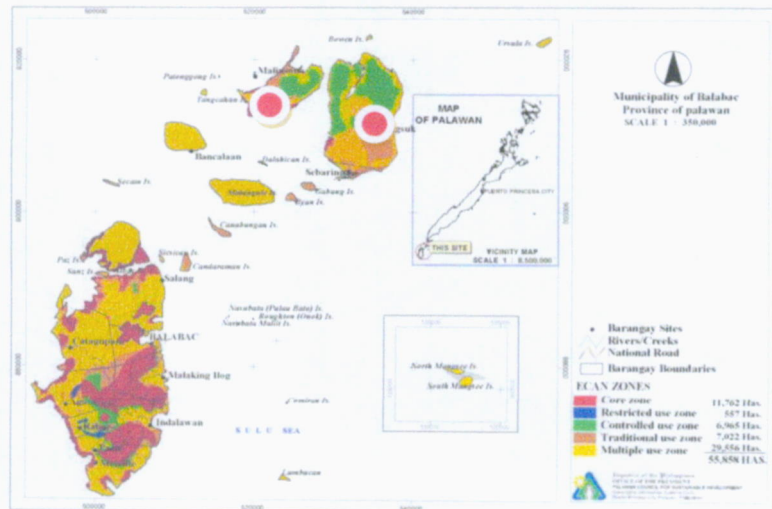


Figure 1. Location map of Pandanan and Bugsuk Island (red dots) in municipality of Balabac, Palawan (Map: PCSDS).

serves as one of the important habitat for the endemic Balabac Mousedeer *Tragulus nigricans*,

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

A total of 55.6km was covered by patrollers in 16 patrolling events for this period. Routine habitat patrol and monitoring was conducted by our wildlife wardens and staff in Pandanan Island: Rene Antonio, Ismael S. Dela Cruz Jr., Deo E. Aplid, Celso Badilla and Ariel C. Omog. Coastal area patrolling was also made on two occasions while settlement visitation on other hand was made along Dalahican, Magsakayan and Barangay Sebaring. Other target activities and settlement visitation were not reached due to bad weather condition.

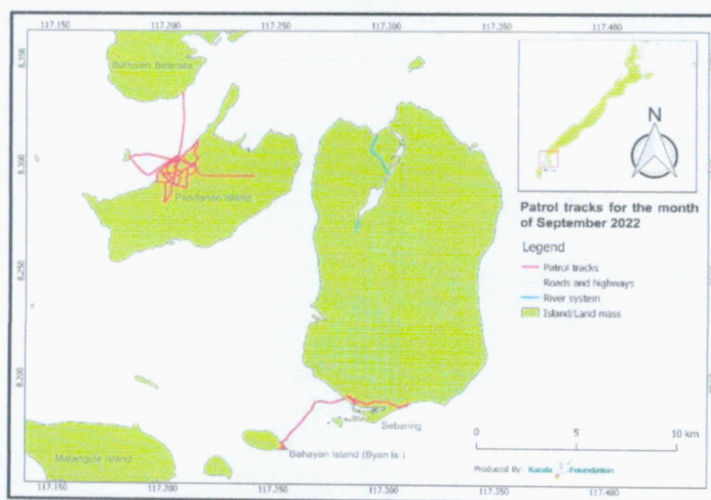


Figure 2. Patrol tracks along Pandanan Island and coastal areas as of September 2022 (Map: KFI 2022).

III. PATROL OBSERVATIONS

A. Wildlife observations

Eleven bird species of conservation importance were recorded by patroller as of this period: Blue-headed racquet-tail I (Vulnerable), Blue-naped parrot (Near threatened), Crested serpent eagle (Least concern), Green imperial pigeon (Near threatened), Hill mynah (Least concern), Hooded pitta (Least concern), Grey-cheeked bulbul (Vulnerable), Palawan hornbill (Vulnerable), Philippine cockatoo (Critically endangered), Philippine scrubfowl (Least concern). Presence of migratory raptor species was also recorded during 29th of the month, an estimated numbers of 1500 Grey-faced buzzard were seen in flight around 12noon above Pandanan Island and heading southeast (Borneo Island). Significant numbers in flight as observed on one occasion was recorded for the first time at least in Pandanan for this species.

On other hand, presence of other wildlife species like Palawan flying squirrel (Near threatened), Long-tailed macaque, Southern Palawan red squirrel, Palawan black spitting cobra and Monitor lizards was also recorded during the patrolling events.

B. Philippine Cockatoo roost counts and food providing tree monitoring

For this month, a total of 186 cockatoos were recorded as the highest count while 21 individuals as the lowest. The latter was greatly affected by Typhoon Karding (Noru) on September 25th, which brought torrential rains and intense southwest wind in southern part of Palawan. We assume that some of the cockatoos are in Bugsuk during these times since secondary roost site Sebaring continue to hold lower numbers as September ends.

Food source monitoring for cockatoos recorded the following plant species: Alalod tree, Aloyaw, Balinad, Balite kulban, Girangan, Ipil-ipil, Mangupak, Palawan cherry, *Sonneratia alba* or Pagatpat and Tarungtong (Fig. 3).



Figure 3. Cockatoo food source recorded this month inside Pandanan and at secondary roost site in Sebaring, Balabac. Mature pods of Tarungtong (left) and young fruit of Alalod (Right, Photos: AOmog).

C. Community monitoring and threats observation

Three transient locals recorded along Magsakayan settlement. These three people originate from Barangay Puring, Bataraza and stayed overnight for gill net fishing along the western waters of Pandanan Island. Respondents left the island on the following day.

D. Nursery works and tree planting site monitoring

A total of 1,826 seeds bags were prepared at KFI nursery on Pandanan Island. Monitoring of forest rehabilitation site was done by our team as of September 09th, out of 973 planted native trees, 646 (or 66%) of these were observed alive and well. While 327 (33%) plants were dead. Mortality reasons include uprooting caused by wild animals especially by Long-tailed macaque and some trampling by passers-by.

E. Site visits and cockatoo monitoring

Monitoring visit was conducted at Barangay Sebaring, Balabac on September 12-14, 2022. On the 12th, we counted six cockatoos at the roost site; then at dusk on the 13th and dawn on the

14th there are eight cockatoos counted. Informal interviews were conducted in Sebaring proper and at Bahayan Island where 100-150 individuals were observed in August 2022 while few Katala was seen this September. No other roost site found by our team in Sebaring. This observation of high numbers of cockatoos in August also coincide with the fruiting period of Malungay and Pagatpat in the area.

Our house-to-house poster distribution totalled to 76 and 24 posters in Sebaring proper while 24 in Bahayan Island. This was also focus group discussion done in these areas with focus on the efforts to save the cockatoos, its habitat and its presence in said areas. These locals are mostly coconut and seaweed farmers and fisherfolks. Two former cockatoo poachers were also visited by our team and currently they are engaged in seaweeds production and fishing. No direct threats to Katala were observed in Sebaring during this visit since regular monitoring is conducted by our volunteer from the area.



Figure 4. Secondary roost site (left) and foraging areas at Barangay Sebaring, Balabac (Photos: KFI 2022).



Figure 5. House to house poster distribution at Sebaring proper (top left and top right) and at Bahayan Island (Lower left and right, Photos: KFI 2022)

IV. ISSUES, CONSTRAINTS AND ACTIONS TAKEN

Regular forest patrolling and monitoring will be continued. While sightings of cockatoos are spread out even on main island of Balabac, IEC must be pursued to ensure that foraging areas must be secured from any forms of threats.

V. RECOMMENDATIONS

Establishment of critical habitat for wildlife in Pandanan Island is deemed necessary. Site visitation, IEC and FGDs must be continued. Local protection of cockatoo foraging areas must be considered in Barangays of Balabac with regular sightings and roost sites.

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 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:



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, IDL, 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.*