

# KFI PATROL AND MONITORING REPORT ON FOREST AND BIODIVERSITY

## July and August 2022 SUMMARY Dumaran Island Critical Habitat Dumaran, Palawan



**38**

Bilang ng nagawang  
patrolya



**333.94**

Kabuuang kilometrong naabot ng  
patrolya



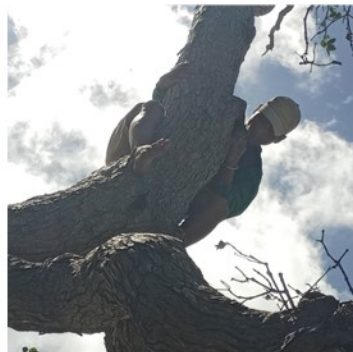
**95.38**

Kabuuang oras ng  
patrolya



**12,745**

Bilang ng natanim



**6**

Bilang ng nabisitang pugad at  
ANB ng mga cavity nesters



**1**

Bilang ng ilegal na  
gawain na naobserba



**19**

Pinakamataas na bilang sa  
tulugan ng Katala



**7**

Pinakamataas na  
grupong Talusi na nakita



**49**

Nakitang namumunga at  
namumulaklak na puno





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

**July and August 2022**

Prepared by:

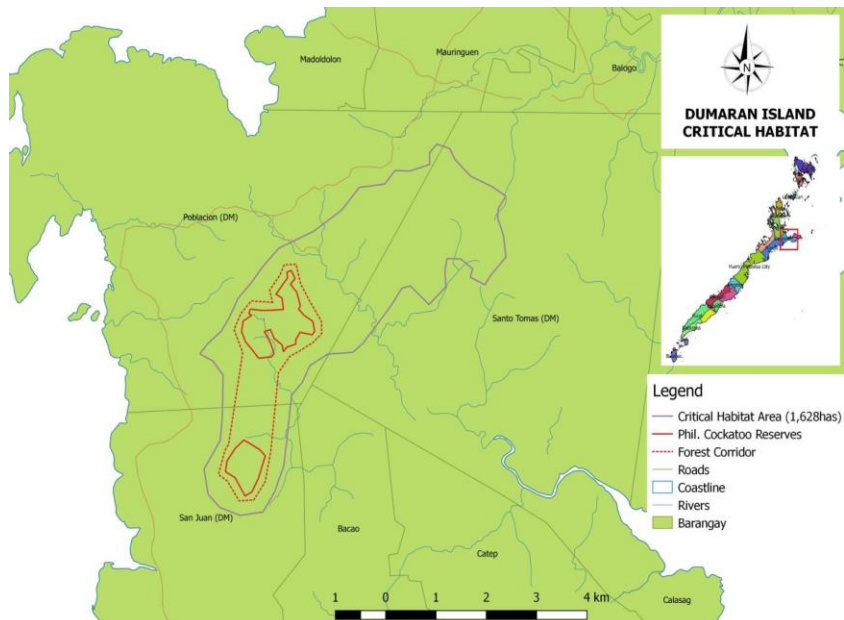
**Michael F. Plazos, Lemuel Pabico, Joshuael Nuñez, Peter Widmann and Indira D. L. Widmann**

### 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).

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

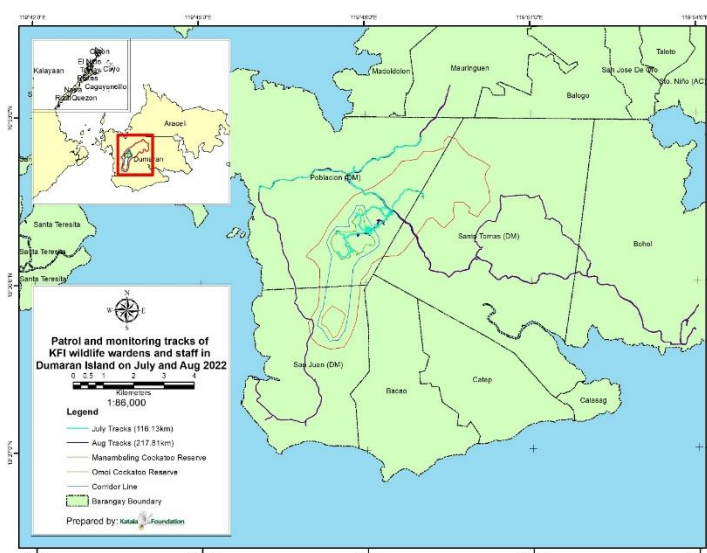
1. Increased number of Philippine Cockatoo breeding pairs on Dumarán by at least 20% by 2024 (Baseline: average breeding pairs 2019 to 2021: 5.0);
2. Increased percentage points in KAPP survey results by at least 20%;
3. Pursued supplementation of Philippine Cockatoos using suitable rescued birds;
4. 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

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. Suitable driftwoods to be used as artificial nest boxes (ANB) were also collected if available. Nest monitoring and checking were also conducted in which three nests and three ANBs of several cavity nesters were visited.



**Figure 2.** Patrol tracks for July-August 2022 @KFI



**Figure 3.** Wardens as they climbed a nest tree as part of the breeding season monitoring (left); A logged Narra tree in Sitio Debdeb outside of DICH that was documented by team @KFI



Monthly patrols covered 333.94km distance (116.13km on July and 217.81km on August) from a total of 38 patrols and 95.38 hours within the Omoi and Manambaling Protected Areas, forested area within Bulalakaw, Camaya, Candez, Kasipulo, and San Juan. No threats were observed during monitoring inside the DICH and remains of sewed-cut timbers (felled trees during Typhoon Odette) were prevalent in the area. Alleged cutting of a Narra tree in Sitio Debdeb reported by Bantay- Dumaran was verified last July 28. Two suspects were named and the logged timber was confiscated by the Philippine National Police (PNP)- Dumaran. The tree was 34cm thick and 42m high.

On Aug 20, KFI staff and warden went to a forested area on Sitio Kasipulo to Sitio Baleteng Bilog to verify a report of tree cutting plan in the area; supposedly trees planned to be cut were already marked. On-site verification failed to record marked trees and only underbrush and grass-cleared area were observed.

Another site verification was conducted last Aug 23 in Bgy. Bohol due to a report of mangrove cutting and underbrushing on Sitio Baleteng-bilog within the DICH. No cutting nor underbrushing were observed. Two Dumaran residents volunteered for nursery and warden works namely Miguel Nadayao Jr. and Rodolfo Comedia. Both of them were trained to use technologies needed in patrolling and reporting i.e., locus app and ODK.





**Figure 4.** Site verification on tree cutting in Bgy. Bohol by KFI and LGU (top); Orientation of new volunteers along with the current wildlife wardens (bottom) @KFI



Regular monitoring in the roost was conducted for July and August. Ten to 19 cockatoos were observed at the site every morning and afternoon. There were mostly 13 cockatoos in the roost every morning (17 times) and afternoon counts (16 times) in July while in August, there were usually 10 cockatoos observed in the roost (13 times). Cloudy and fair weather was observed most of the day in the roost with only nine days of rainfall experienced in July while five days of rainfall were experience in August.

**Figure 5.** KFI staff monitoring the roosting cockatoo in Lagan @KFI



## PATROL OBSERVATIONS

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

No breeding cockatoos were recorded this season; one Philippine Cockatoo nest tree was climbed and monitored with new cut twigs at the base of a tree which is a sign of occupation. Nonbreeding of cockatoos may be attributed to the damage of typhoon Odette in the forest of the island. Two ANB of the said species were recorded with cut twigs on the ground, feathers, and feces on nests and roosting cockatoos but no eggs nor hatchlings were recorded. Visiting cockatoos were recorded in installed camera traps in front of ANBs.



**Figure 6.** Visiting cockatoos in one of the ANB captured by a camera trap @KFI

### ***Supplementation of Natural Population***

The aviary was prepared if there will be rescue of cockatoos in the wild or if there will be translocation of individuals from other sites to Dumarán. Released birds were seldom observed during monitoring and were assumed to assimilate completely with the wild population.

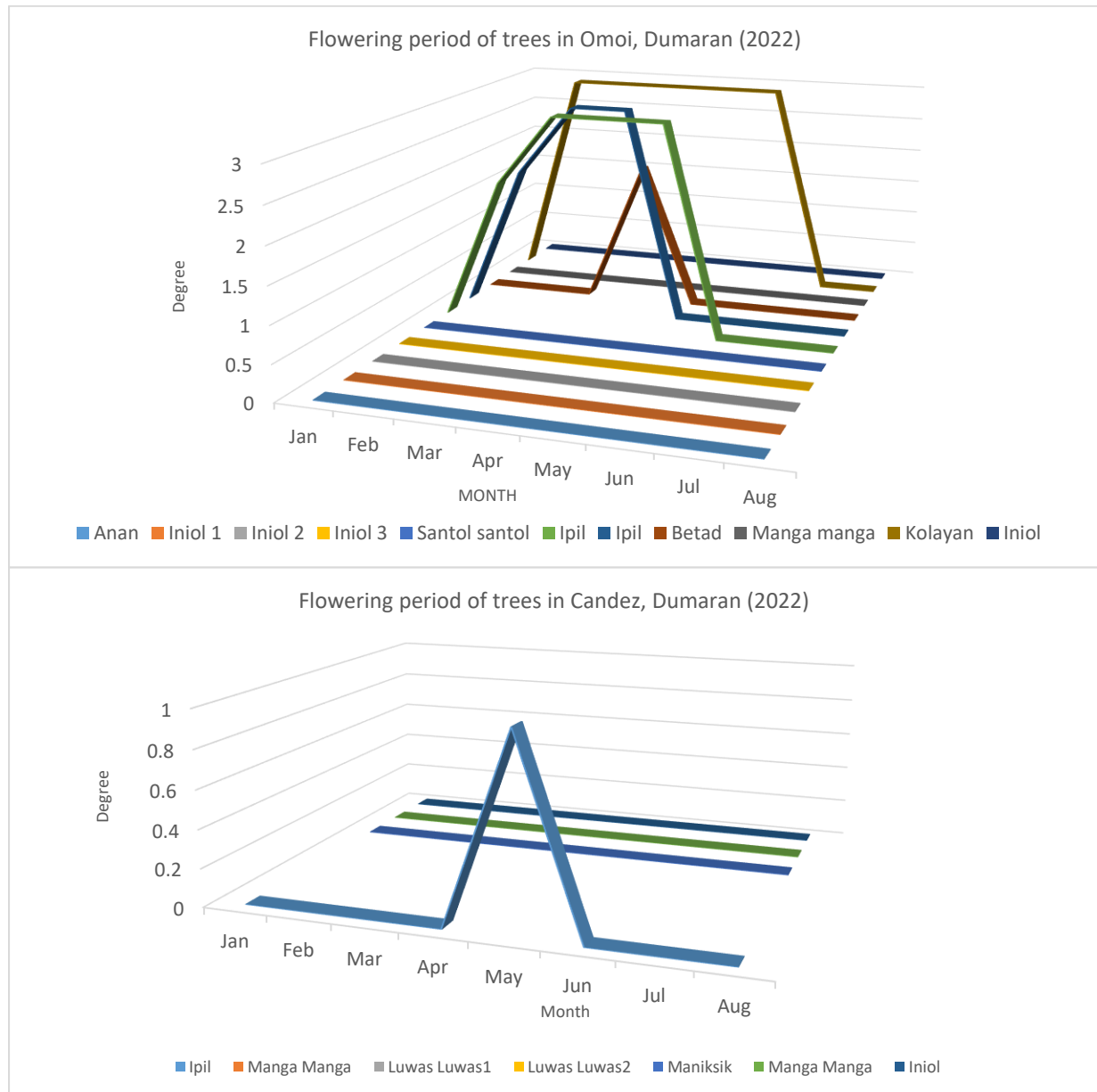


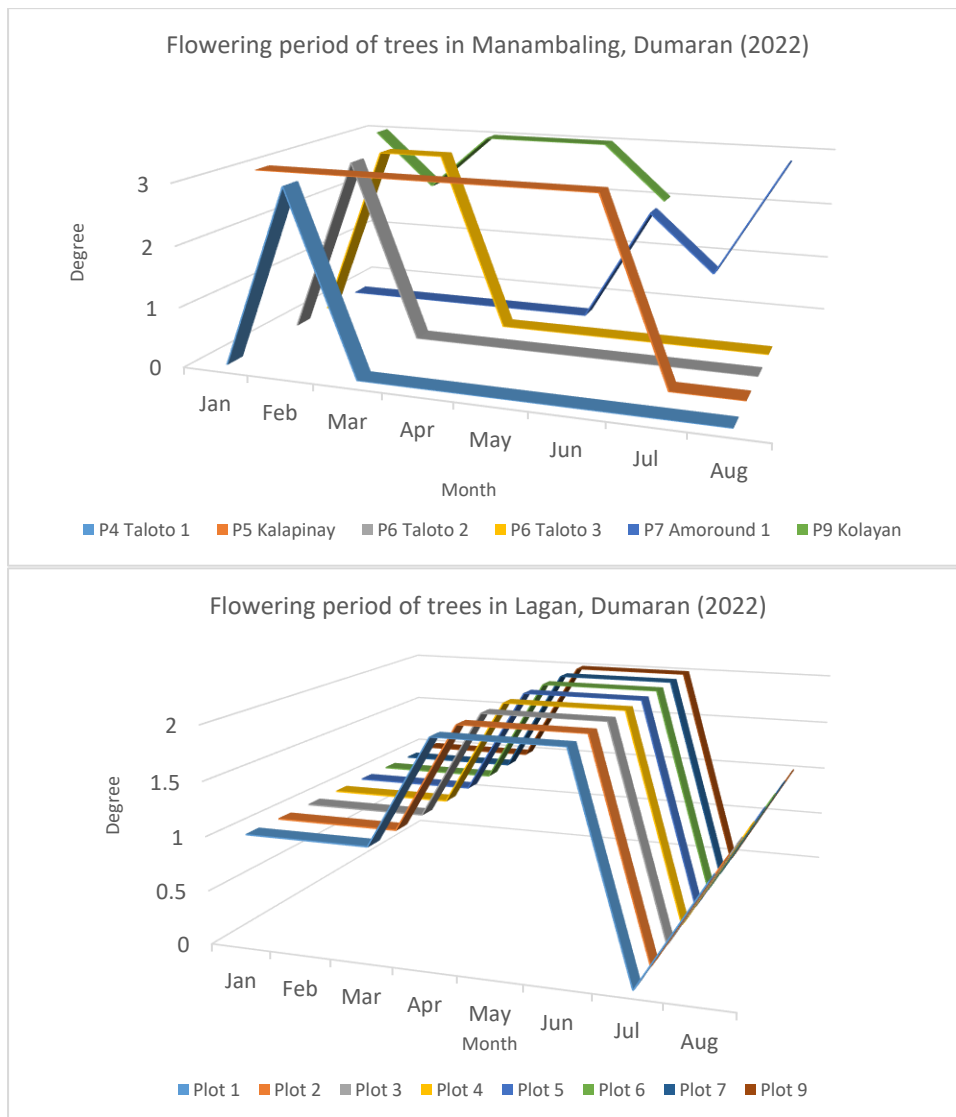
**Figure 7.** The aviary was kept clean in occasion of cockatoo rescue and translocation @KFI

### Foraging

Last 27 August, two cockatoos were observed on a coconut tree in Bgy. Bohol. According to the residents, these birds are roosting in the area for a month now.

Flowering in Omoi plots drastically decreased come July; in Candez no flowering was recorded during the months of July and August. In Manambaling the only flowering tree this month is Amuraon with other trees decreasing in flowering activity. Lastly in Lagan, a consistently flowering period was observed from March to June, then decreased steeply on July and increased thereafter come August.

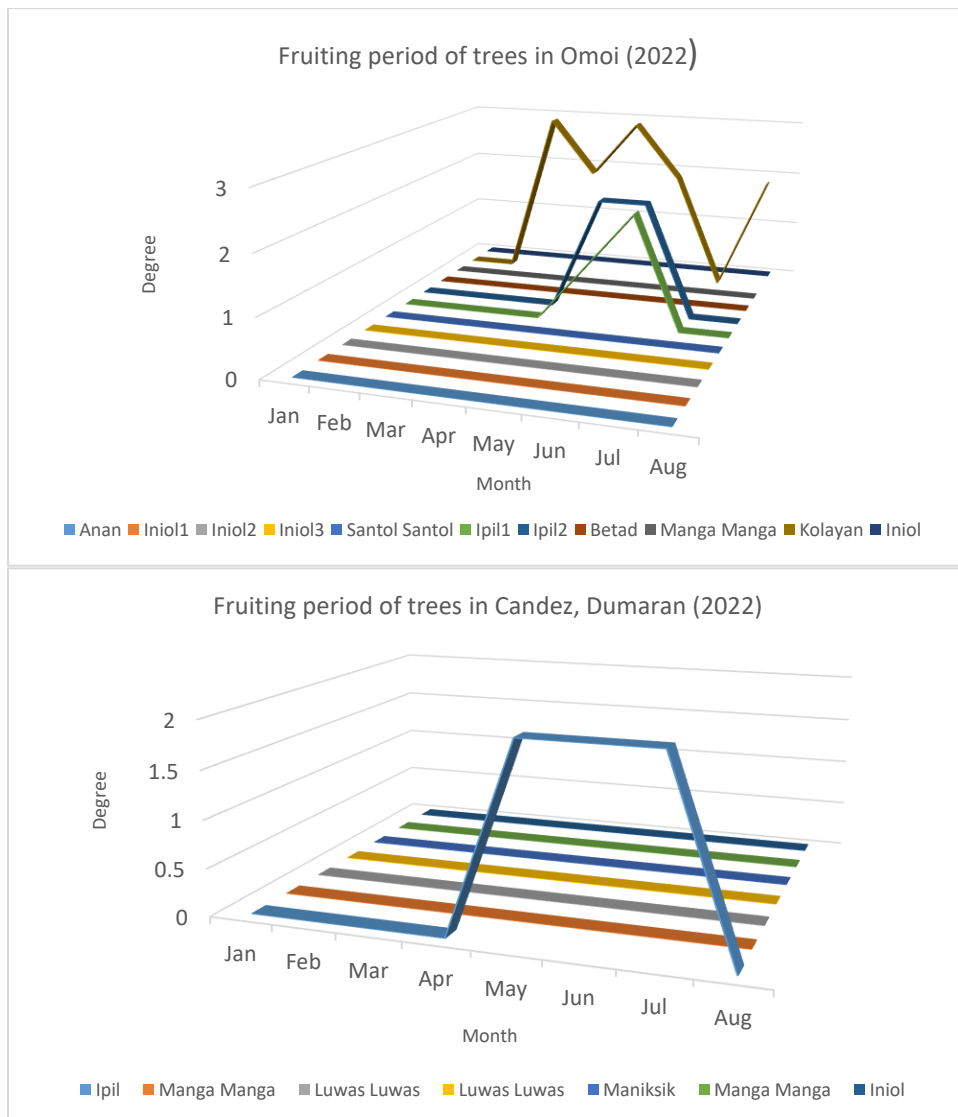


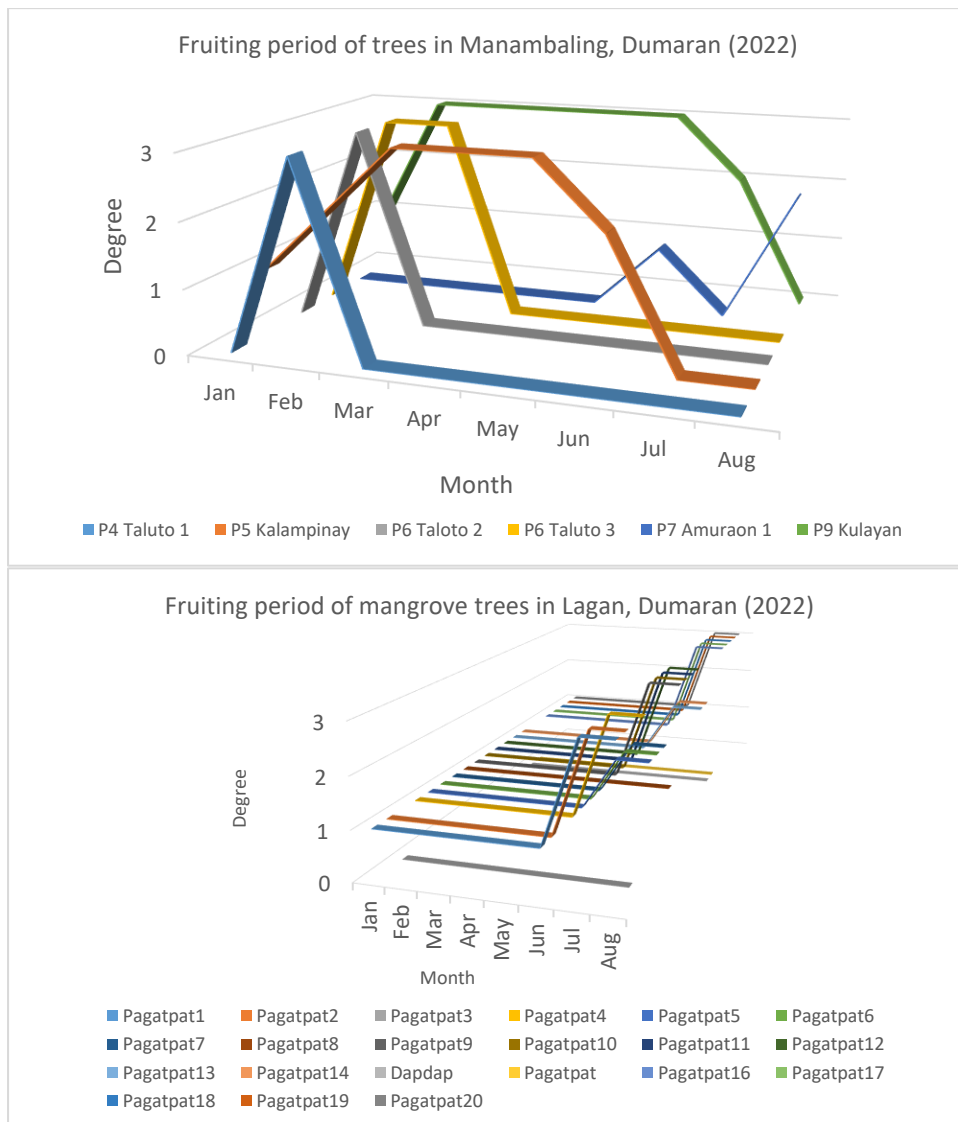


**Figure 8.** Flowering period of trees in Omoi, Candez, Manambaling, and Lagan

Only two trees were recorded to be fruiting in Omoi plots; Kulayan and Ipil. Kulayan is the only one fruiting this August while Ipil was not recorded to be fruiting in both July and August. In Candez, Ipil tree is the only one fruiting for the year, and it was not recorded to be fruiting this August. In Manambaling, Amuraon and Kulayan were the only one recorded to be fruiting last July and August; Amuraon fruited on August while Kulayan bore fruits on July. Most of the Pagatpat trees in Lagan were fruiting come July and consistently until August.







**Figure 9.** Fruiting periods in Omoi, Candez, Manambaling, and Lagan plots

The same observations were recorded last year of the same month on the three former plots, however in Lagan, there are leaf fall and growth last year compared this year. Forty-nine food-providing trees were recorded during these months. These includes Agboy, Amuraon, Amuyong, Anan, Apatot, Balite, Banaba, Bangkudo, Banga, Bangkal, Barok, Basa, Baslayan, Batbat, Beri, Bignay, Binunga, Bunog, Bunot-bunot, Bunuang, Catmon, Dangkalan, Domalta, Imamangal, Dulo, Ilang-ilang, Inagdong, Iniam, Iniol, Ipil, Kalampinay, Kulayan, Kuliat, Orabsik, Lagara, Lapnog, Luwas-luwas, Magabo, Maranggo, Narra, Pagatpat, Panapuan, Saleng, Tagalilong, Tagpe, Taluto, Tebey, and Talisay. Recorded food-providing trees these months of the year were greater compared to the previous year of the same months i.e., 43 food providing trees last July 2022 compared to only 16 last 2021; 37 food providing trees last August 2022 compared to 32 last 2021.





**Figure 10.** Fruiting Kamanglit (left) and Anan (right) recorded during monitoring @KFI

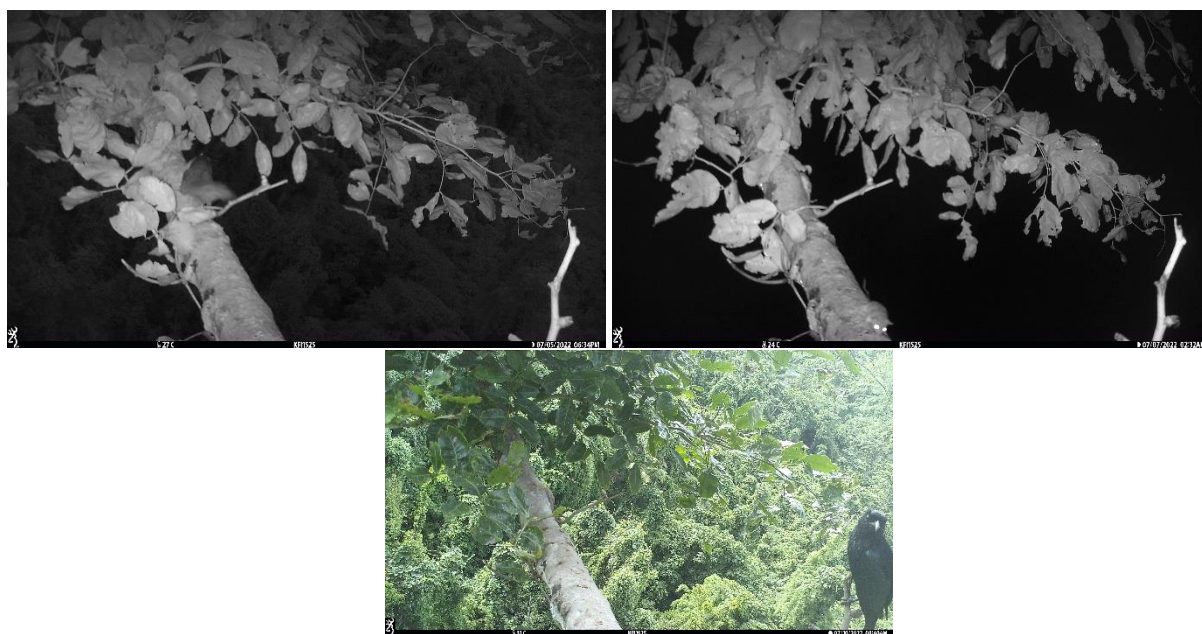
### ***Palawan Hornbill Monitoring***

Hornbill observation ranges from one to seven hornbills recorded on seven areas in the island namely: Omoi, Candez, Kasipulo, Manangbaling, Bacao, Luyang, and Poblacion. They were observed calling, perching, and making noise on Kulayan, Botabon, Cashew, Saleng, Bangkal, Gmelina, Taluto, Balite, Mango, Acacia, Catmon, Talisay, Pagatpat, Coconut, Narra, and mangroves, and calling from the forested area, nursery main, and cashew plantation. Two hornbill nests were monitored with no signs of occupation.

### ***Other wildlife species***

An ANB occupied by a Dollarbird was visited again; the four hatchlings previously recorded were assumed to have successfully pledged.

Fifty-three (53) species were observed in the Biodiversity Monitoring System (BMS) stations in DICH while 40 species were recorded at the reforestation site on both months. Twenty-four species were recorded in both areas and these are: Ashy Drongo, Barred Button-quail, Blue-headed Racket-tail, Blue-naped Parrot, Green Imperial Pigeon, Hooded Pitta, Olive-winged Bulbul, Common Iora, Dollar Bird, Dwarf Kingfisher, Grey-cheeked Bulbul, Hill Mynah, Palawan Hornbill, Lovely Sunbird, Palawan Water Monitor, Pink-necked Green-pigeon, Red Junglefowl, Spotted Dove, Spangled Drongo, Squirrel, Storked-billed Kingfisher, White-collared Kingfisher, Yellow-throated Leafbird, and Zebra Dove.



**Figure 11.** Wildlife visitors of ANB including squirrels, mice, and crows @KFI

Ground camera traps recorded several wildlife including Palawan Bearded Pig, Hooded Pitta, Philippine Megapode, Red Junglefowl, Palawan Tree Shrew, Northern Palawan Tree Squirrel, Palawan Crow, Long-tailed Macaque, Palawan Water Monitor, Ashy-headed Babbler, White-vented Shama, Asian Box Turtle, a family of Small-clawed Otter, and an unidentified mouse. Please see Annex 1.

### III. OTHER HIGHLIGHTS

There are 10,902 wildlings in the main nursery after 3090 were collected last August while 660 and 28 wildlings were released for planting and died respectively. Most of the wildlings in the main nursery are Lamoto (1225), Nato (2329), and Palomaria (2837). There were no changes in the number of wildlings in Candez satellite nursery for August and July i.e., 1289 wildlings. In Manambaling satellite nursery there are 1164 wildlings after 87 were collected and 91 and 4 wildlings were released for planting and died respectively. There are no wildlings in the growth chamber. Regular activities in the nursery e.g., potting, watering, and cleaning, were continuous.

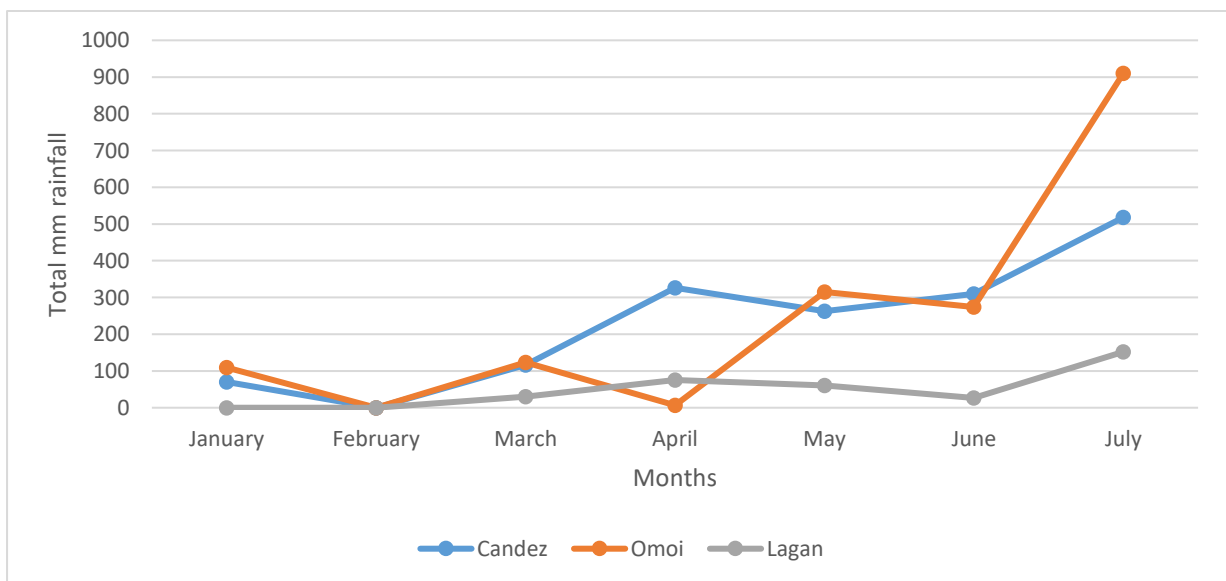
Highest rainfall data was recorded in Omoi monitoring station with 1402mm rainfall observed; it was followed by Candez monitoring station with 844mm rainfall and Lagan monitoring station with 328 mm rainfall. Rainfall season has started now in Dumarán, and thus tree planting should be maximized.

A total of 12,745 wildlings were planted for the month of July (6205) and August (6540) in Omoi reforestation area. There were 17 species of native trees planted for these months: Kulayan, Lamoto, Baslayan, Nato, Palomaria, Botabon, Kamagong, Dumarán, Magabo, Bolabog, Narra, Dumatla, Iniol, Ipil, Santol-santol, Taulili, and Bunog. Most of the trees planted were Kulayan (2610), Lamoto (1815), Baslayan (1415), and Nato (1276).





**Figure 12.** Nursery works conducted religiously by wildlife wardens and volunteers who are aiming to plant 6000 seedlings per month @KFI



**Figure 13.** Rainfall data of Dumarán Island from January to July 2022



The distribution of housing aid for the victims of Typhoon Odette was continuous. Monitoring of each household will be conducted regularly; 51 households were monitored for these months. There were four and three households in Bgy. Calasag and Bgy. Catep respectively that have finished their repairs. Meanwhile in Bgy. Bohol, ten household have finished rebuilding their houses. Please see Annex 2 and 3 for list of recipients and some photos.

Rebuilding our Katala Environmental Education Center (KEEC)/field station is ongoing as of this writing with needed construction material transported from the mainland to the island. The roof was installed and the floor was being finished; lumbers and other materials were secured so that the KEEC will be finished before the end of the year.



**Figure 14.** Hauling of lumber and amakan for the KEEC construction (top); the status of KEEC last July (center) and August (bottom) @KFI



KFI also attended several meetings for the betterment of Dumarán. Michael Plazos attended the regular LPAMC last August 8 with Indira Widmann joining via Zoom; updates and future plans for the project were presented by Mr. Plazos. A focus group discussion (FGD) was also attended alongside island school principals and heads to discuss the status of students and learners after face-to-face classes have commenced.



**Figure 15.** Regular LPAMC meeting attended by KFI and FGD with schools' stakeholders @KFI.

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

With the change in the local administration in Dumarán, we are hoping to continue the fruitful endeavor on the island in partnership with the local government unit. In fact, we had a courtesy call with the newly-elected mayor, Hon. Richard Herrera last July 4. 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.



**Figure 17.** Courtesy call by KFI-Dumarán to the newly elected mayor of Dumarán @KFI

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. No ANB constructed yet due to unavailability of carpenters, but will commence construction at the last quarter of the year in preparation for the next breeding season. Nest characteristics assessment will also be conducted to compare nests and nest trees over time.

## ACKNOWLEDGEMENT

Thank you very much to the LGU-Dumaran 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 Dumaran: 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 Dumaran project.

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

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



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**Annex 1.** Wildlife observed in the camera traps (from left to right downwards): Northern Palawan Tree Squirrel, Hooded Pitta, Philippine Megapode, Small-clawed Otter, Palawan Tree Shrew, White-vented Shama, Ashy-headed Babbler, and Palawan Water Monitor @KFI.



**Annex 2.** Recipients of housing materials from “Ayudang pambahay, Alay ni Abukay para sa Dumaran” project.

<b>Recipient</b>	<b>Barangay</b>	<b>Batch</b>
Aurelio Andres	Bacao	First
Reynald Badayos	Bacao	First
Gerardo Bartolo	Bacao	First
Anita Beloria	Bacao	First
Joel Buton	Bacao	First
Amida Favila	Bacao	First
Roy Hamora	Bacao	First
Jhon Erick Mahusay	Bacao	First
Sherlito Mahusay	Bacao	First
Ernesto Manzano	Bacao	First
Elizabeth Monsanto	Bacao	First
Diosdado Padon	Bacao	First
Elorde Rosalez	Bacao	First
Nenita Roxas	Bacao	First
Eric Sebuja	Bacao	First
Mario Sebuja	Bacao	First
Eddie Veluya	Bacao	First
Andronico Yamson	Bacao	First
Joel Amparo	Bacao	Second
Nerissa Cabardo	Bacao	Second
Francisco Canite	Bacao	Second
Mortel Roberto	Bacao	Second
Michel Padul	Bacao	Second
Leny Recla	Bacao	Second
Demna Rosales	Bacao	Second
Mary Joy Sineneng	Bacao	Second
Milo Macmac	Bohol	First
Merdy Agawin	Bohol	First
Randy Agawin	Bohol	First
Arnel Cabanillas	Bohol	First
Rengie Calalin	Bohol	First
Sonny Boy Galvez	Bohol	First
Rosie Jovenes	Bohol	First
Romy Padon	Bohol	First
Aldrin Padul	Bohol	First
Jonathan Padul	Bohol	First
Vicente Calalin	Calasag	Second
Rolly Magalona	Calasag	Second
Prudencio Padon	Calasag	Second
Wilfredo Vigonte	Calasag	Second
Socoro Adier	Catep	Second



Eugene Agawin	Catep	Second
Jose Nicanor	Catep	Second
Nema Azucena	Poblacion	First and Second
Rene Bernal	Poblacion	First
Junie Dela Cruz	Poblacion	Second
Candelaria Mendez	Poblacion	Second
Richard Ustares	Poblacion	Second
Eric Borja	San Juan	First
Domingo Sy	San Juan	First
Felipe Condesa	Sto. Tomas	First

**ANNEX 3.** Some snapshots of the status of the houses of Ayudang Pambahay ni Abukay program recipients of KFI on Dumaran Island @KFI

