



Republic of the Philippines  
Department of Environment and Natural Resources  
MIMAROPA Region  
**PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE**



SEP 20 2022

**MEMORANDUM**

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

**THRU** : The ARD for Technical Services

**FROM** : The OIC, PENR Officer

**SUBJECT** : **SUBMISSION OF THE 3<sup>RD</sup> QUARTER MONITORING  
REPORT ON BATS (FLYING FOXES) IN BRGY.  
MANGARIN, SAN JOSE, OCCIDENTAL MINDORO**

Forwarded is the memorandum dated September 14, 2022 of CENRO San Jose regarding report on the activities undertaken on bats/flying foxes under MFO Code No.310202100001000 particularly roosting site monitoring located in Sitio Old Mangarin Brgy. Mangarin, San Jose, Occidental Mindoro covering the period from July to September 2022.

The following activities conducted are as follows: (1) biodiversity monitoring; (2) flying fox roosting site assessment; (3) population monitoring and (4) annual population count of the said species. Based on the report, the team counted an estimated number of 19,970 individuals during the 35-minute observation count and being the highest since 2021.

Attached herewith are the photo documentation of activities undertaken for ready reference.

For information and record.

**ERNESTO E. TAÑADA**

TSD-CDS9/19/2022

Copy furnished:

1. Planning Section
2. C-San Jose
3. File





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

SEP 14 2022

**MEMORANDUM**

FOR : The Regional Executive Director  
DENR-MIMAROPA Region  
Roxas Blvd., Ermita, Manila

THRU : The OIC, PENR Officer  
DENR-Mamburao, Occidental Mindoro

FROM : The CENR Officer

SUBJECT : SUBMISSION OF THE 3<sup>RD</sup> QUARTER MONITORING  
REPORT ON BATS (FLYING FOXES) IN BRGY.  
MANGARIN, SAN JOSE, OCCIDENTAL MINDORO

Respectfully submitted is the report on the activities undertaken by this office on bats/flying foxes under MFO Code No. 310202100001000 particularly roosting site monitoring located in Sitio Old Mangarin, Brgy. Mangarin, San Jose, Occidental Mindoro covering the period from July to September 2022.

The activities conducted are as follows: (1) biodiversity monitoring; (2) flying fox roosting site assessment; (3) population monitoring; and (4) annual population count of the said species. Reportedly, the team counted an estimated number of 19,970 individuals during the 35-minute observation count and being the highest since 2021.

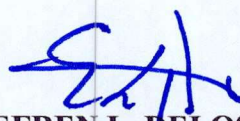
Photo documentation of the activities undertaken and maps are also attached for your ready reference.

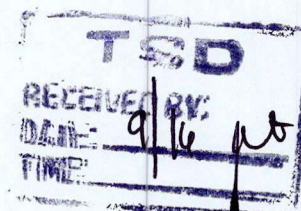
For your information and record.



JP/MEMOfolder2022/3rdQuarterReport



  
EFREN L. DELOS REYES







September 12, 2022

**MEMORANDUM**

FOR : The OIC, PENR Officer  
DENR-Mamburao, Occidental Mindoro

THRU : The CENR Officer

FROM : The Head, CDS-Biodiversity Management Unit

SUBJECT : SUBMISSION OF THE 3<sup>RD</sup> QUARTER MONITORING  
REPORT ON BATS (FLYING FOXES) IN BRGY.  
MANGARIN, SAN JOSE, OCCIDENTAL MINDORO

Relative to the P/P/A on **Protection and Conservation of Wildlife** which is the Conservation of Threatened Species under MFO Code No. 310202100001000 specifically the population and habitat monitoring, and protection of bats/flying foxes, respectfully submitted is the monitoring report of the CDS-BMU covering the period from July to September 2022.

Hereunder are the highlights of the activities undertaken on bats/flying foxes in Brgy. Mangarin, to wit:

**1. Biodiversity monitoring**

On 20 July 2022, the CDS Team assisted by our local guide, did a transect walk and recorded all the flora and fauna observed along the established transect line. The transect walk covered a total distance of 1.385 kilometers.

FLORA	FAUNA
Api-api/Bongalon, acacia, ipil-ipil, Bakawang babae, aroma, napier grass, camachile, Banaba, banana, siniguelas and bamboo	Black bittern, Brown shrike, Cattle egret, intermediate egret, Purple heron, Gray heron, Collared Kingfisher, Common Redshank, Common Sandpiper, Island-collared dove, Philippine Pied fantail, Zebra dove, Chestnut munia, Far Eastern Curlew, Large-billed Crow, Black-naped oriole, Bangus, dragonfly, butterfly and baguigon

**2. Flying fox roosting site assessment**

The flying foxes found in Sitio Old Mangarin preferred to roost in the five-hectare mangrove stands composed of species from the family Avicenniaceae (*Bungalon/Api-Api/Miapi*), Sonneratiaceae (*Pagatpat*) and Rhizophoraceae (*Bakawang babae*).



The roosting trees observed were approximately 5-8 meters tall with 15–20 centimeter diameter at breast height (DBH). The area is also adjacent to many fishponds, including some abandoned ones.

### 3. Population monitoring

The exit count at bat roosts which is a Simple Visual Count is the method being used by the Team in monitoring the population of the species. Flying foxes start to leave their roost while there is still light and can be counted directly without the aid of cameras or video equipment.

On this specific period of monitoring, the flying foxes started to fly-out at 6:34 PM which lasted until 6:54 PM. The team recorded an estimated count ranging from 6,760 to 7,550 individuals.

### 4. Annual population count of the flying foxes

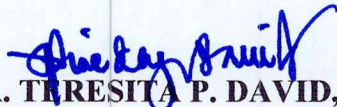
On 16 August 2022, the CDS-BMU Team together with a local guide and stakeholder, conducted the population counting of flying foxes. They stationed themselves at the center of the fishpond where the bats can be seen when they fly-out from their roosting site.

The team assigned three (3) counting posts as it was observed in the previous monitoring that the flying foxes somehow fly in 3-4 different directions. At 6:11 PM, the fly-out started which lasted for **35 minutes** or ended at 6:46 PM. The team counted more or less **19,970 individuals**, which is the highest recorded count so far compared to what was recorded during the monitoring in July 2022 and also of the **2021** population counts of **3,260 individuals** in July (*reason for the low count may be attributed to the bad weather condition during the time of the observation*) and **15,190** in November.

Identification of the specific flying fox species was not undertaken as the Team has limited equipment hence, provision of the needed monitoring equipment is constantly being requested.

Photo documentation of the activities undertaken and map are hereto attached for your ready reference.

For your information, record and further instruction.

  
MA. THERESITA P. DAVID, JR.

Noted by:

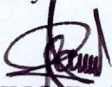
  
**ORLINO B. GACUAN**  
SEMS/Chief, CDS

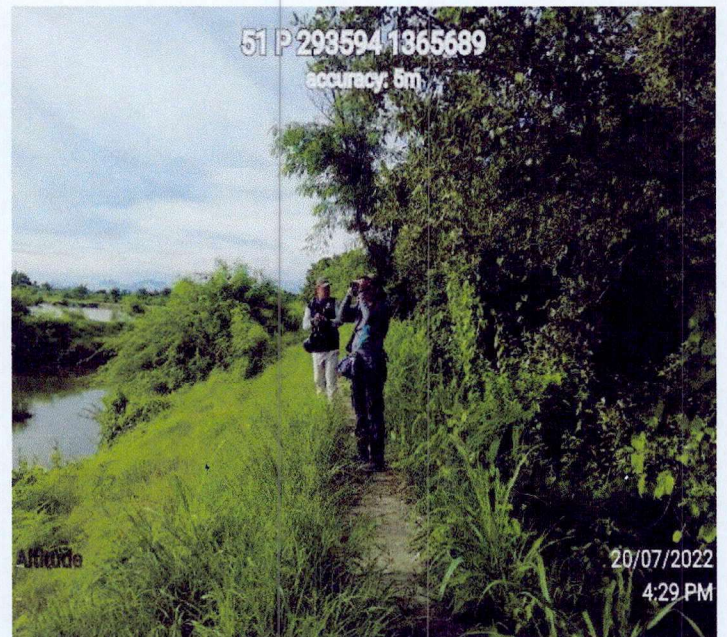
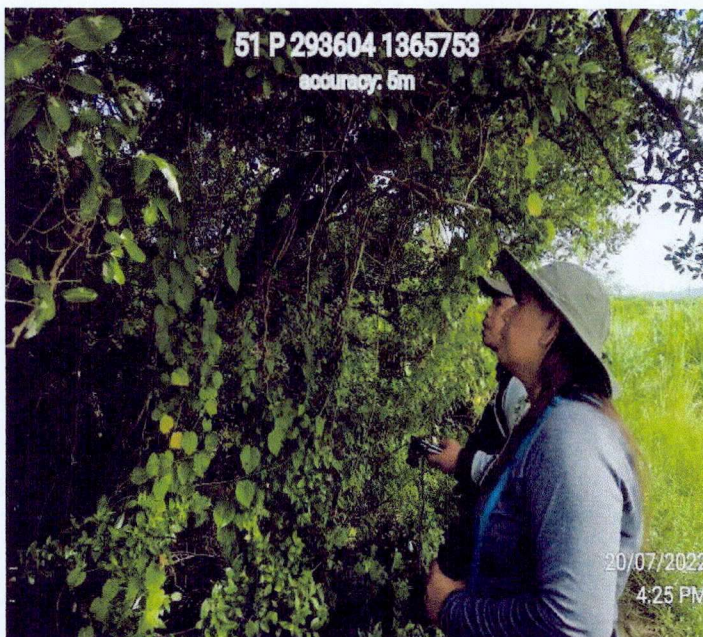


PHOTO DOCUMENTATION

BIODIVERSITY MONITORING

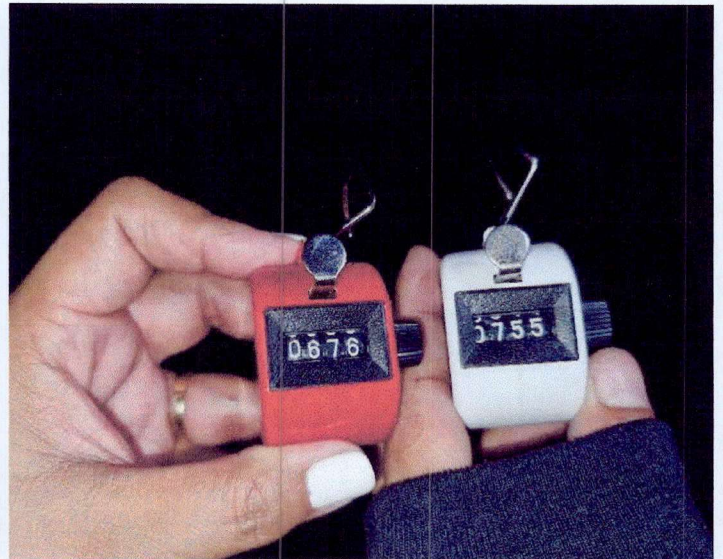
BRGY. MANGARIN, SAN JOSE OCCIDENTAL MINDORO

JULY 20-21, 2022

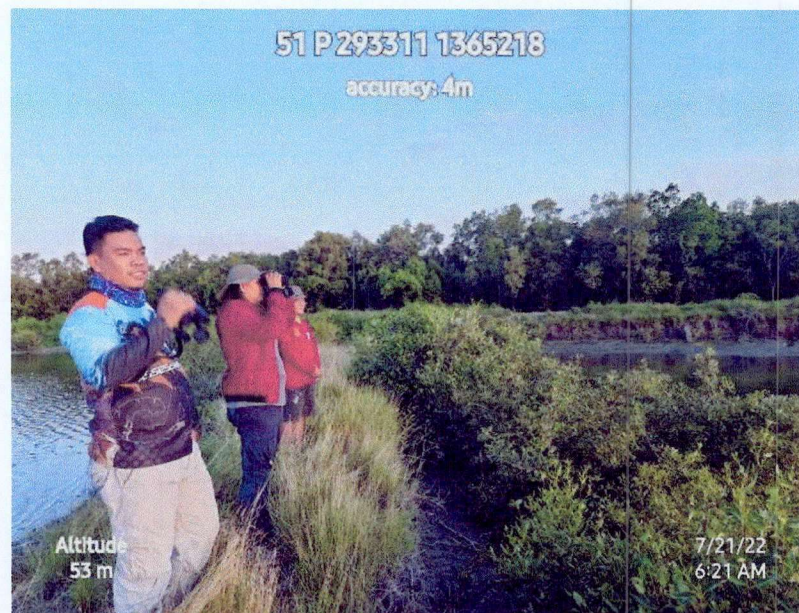




## FLYING FOX POPULATION MONITORING



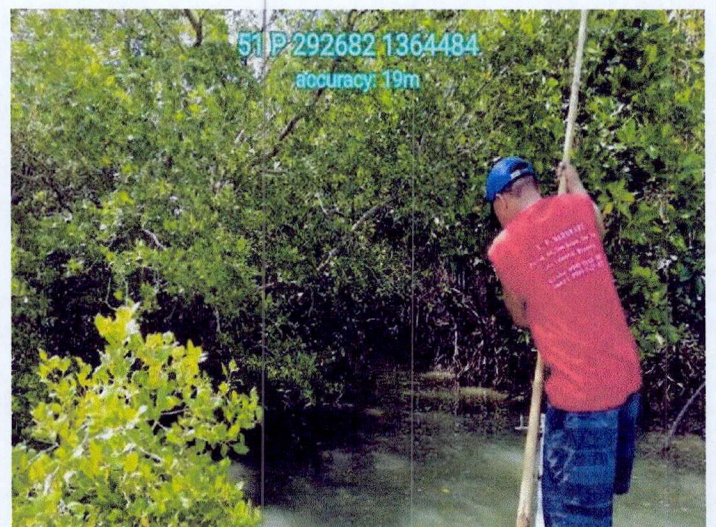
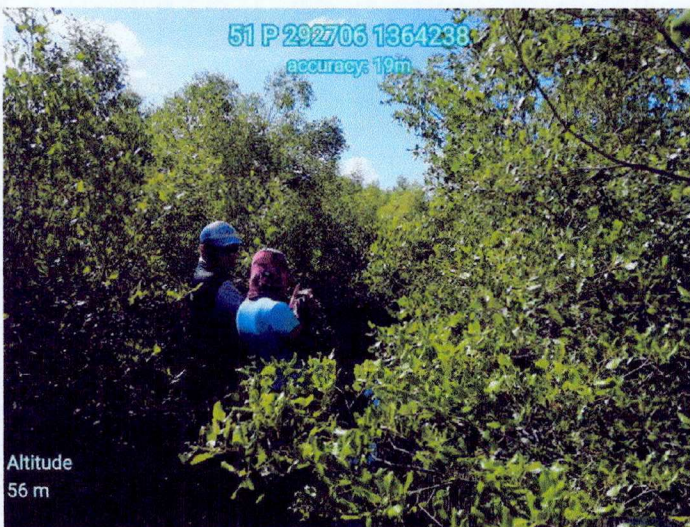
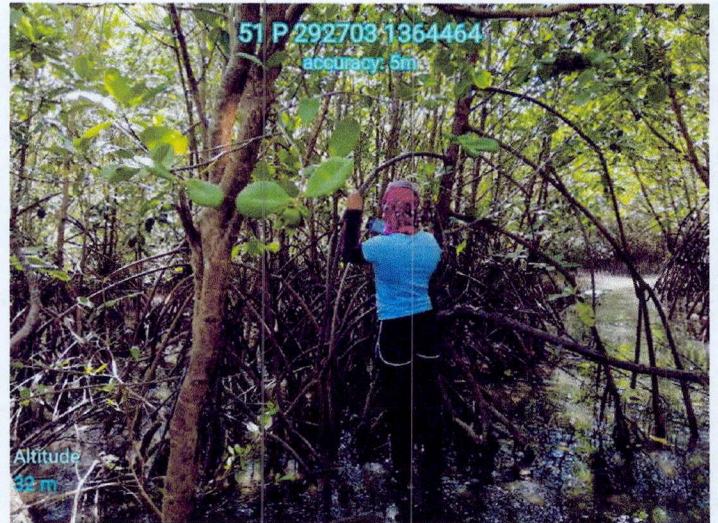
During the fly out of flying foxes from their roosting site. The counters' result is multiplied by 10 to get the total number of individuals counted.



Continued monitoring of the flying fox roosting site was undertaken the following day.

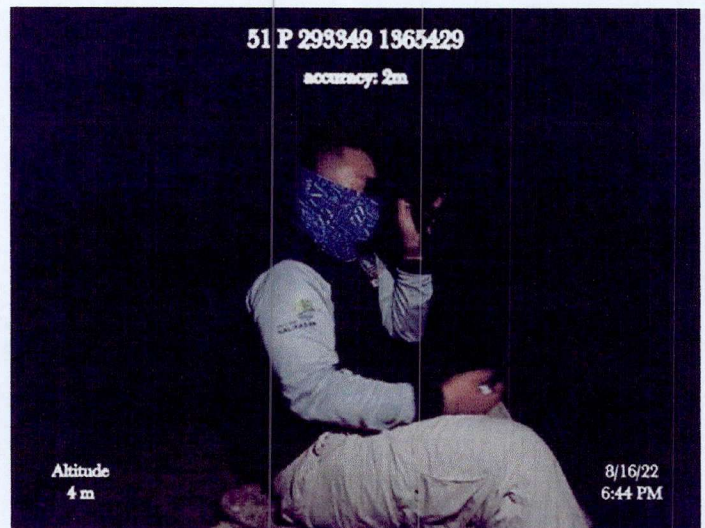
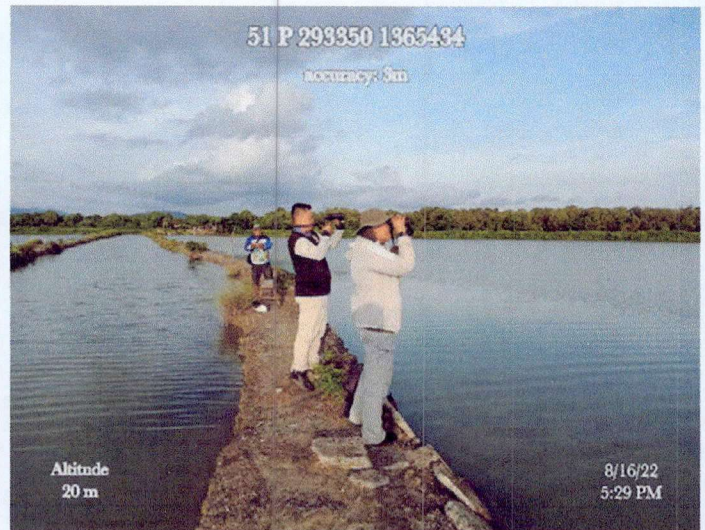


## FLYING FOX ROOSTING SITE ASSESSMENT

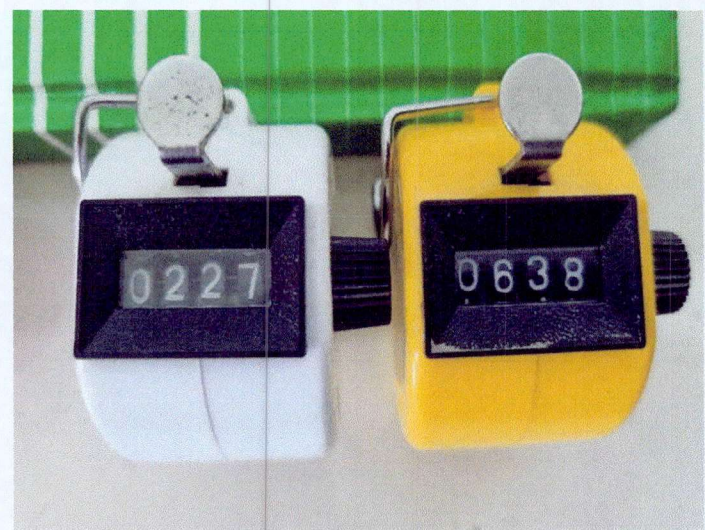




# FLYING FOX POPULATION COUNT AUGUST 16, 2022



Estimated results from Counting Post #1  
Bats counted ranged from 10,500 to 11,320 individuals



Estimated results from Counting Posts #2 & 3  
Approximately 2,270 and 6,380 individuals were counted



DRONE SHOT OF THE FL YING FOX ROOSTING SITE WITHIN THE 10-HECTARE MANGROVE AREA





