



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



April 4, 2023

MEMORANDUM

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

THRU : The OIC Regional Assistant Director for Technical Services

FROM : The Provincial Environment and
Natural Resources Officer

SUBJECT : **CONDUCTED BIODIVERSITY ASSESSMENT AND
MONITORING SYSTEM (BAMS) OF EL NIDO MANAGED
RESOURCE PROTECTED AREA (ENMRPA) FOR THE 1ST
QUARTER CY 2023**

Forwarded is the memorandum dated March 22, 2023 from CENRO Taytay along with the Report on the conducted Biodiversity Assessment and Monitoring System (BAMS) of El Nido Managed Resource Protected Area (ENMRPA) for the 1st quarter CY 2023.

Please be informed that the BAMS activity was conducted on March 10, 2023 in the established BAMS sites in Barangays Maligaya and Corong-corong, El Nido, Palawan. Activities conducted were monitoring of fauna, water quality monitoring and documentation of threats in the area.

For information and record.

[Signature]
FELIZARDO B. CAYATOC
[Initials]



DENR-PALAWAN
PENRO-RECORDS
RELEASED
By: *[Signature]*
Date: *[Date]* CN: 2023-915
11 APR 2023



Republic of the Philippines
Department of Environment and Natural Resources
Region IV- MIMAROPA

COMMUNITY ENVIRONMENT AND NATURAL RESOURCES OFFICE

by the National Highway, Poblacion, Taytay, Palawan 5312

Contact No.: 09265059335 (Globe) / 09121713889 (Smart)

Email address: cenrotaytay@denr.gov.ph

**DENR PENRO
PALAWAN RECORDS
RECEIVED**

March 22, 2023

BY: [Signature]
DATE: 03-20-2023 CN 23-2855

MEMORANDUM

FOR : The Provincial Environment and Natural Resources Officer- Palawan
FROM : The Community Environment and Natural Resources Officer
SUBJECT : **ACCOMPLISHMENT REPORT ON ACTIVITY PER WFP
El Nido-Taytay Managed Resource Protected Area (ENTMRPA)**

Activity: Biodiversity Assessment and Monitoring System (BAMS) Terrestrial				
Performance Indicator: Flora and Fauna monitoring conducted within the 2-Ha PBMA (Wet and Dry season)				
Frequency of submission: 1 st to 3 rd quarter				
Current submission: Memo report of Assistant Protected Area Superintendent/PMF Jenuel P. Casel dated March 20, 2023 (CN 1924 in the eDATS) submitting the report on the conducted fauna and water quality monitoring for dry season within BAMS area for Protected Area Management Office of El Nido-Taytay Managed Resource Protected Area (ENTMRPA).				
Attachment:				
<ol style="list-style-type: none"> 1. Memo report of Park Ranger Steen John B. Andao dated March 20, 2023. 2. Comprehensive report (2 pages) 3. Water Quality Monitoring Field Data Form (3 pages) 4. Photo documentation (5 pages) 				
Gender & Development (GaD) data	Male = 3	Female = 2	LGBTQ+ = 0	Prefer not to say = 0
Age Grouping	60 and above	18-59	17 and below	TOTAL
	0	5	0	5
Environmental Management System (EMS Compliance)	<ul style="list-style-type: none"> ✓ Compliant to 5S organization techniques (SORT – keep only necessary items, SET IN ORDER – arrange items to promote efficient workflow, SHINE – clean the work area so it is neat and tidy, STANDARDIZE – set standards for a consistently organized workplace and SUSTAIN – maintain and review standard) ✓ Organizing of travel to maximize conveyance and observance of speed limit to practice the minimized used of fuel ✓ Carpooling ✓ No single use of plastic ✓ PENRO Memo No. 2023-001 dated February 21, 2023 			

This is our **Means of Verification (MoV)** on the activity. Please confirm your receipt hereof. Thank you.

**DENR CENRO
TAYTAY, PALAWAN
RELEASED**

BY: [Signature]
DATE: MAR 23 2023 CN 1194

CONRADO M. CORPUZ

Copy furnished:
PAMO-ENTMRPA



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Community Environment and Natural Resources
EL NIDO MANAGED RESOURCE PROTECTED AREA
Calle Real, Barangay Masagana, El Nido, Palawan, 5313
Contact No. LANDLINE (0917-1103-262)
Email: entmrpa@gmail.com

March 20, 2023

FOR : The Community Environment and
Natural Resources Officer
Taytay, Palawan

FROM : The Protected Area Superintendent
El Nido Managed Resource Protected Area

SUBJECT : CONDUCTED BIODIVERSITY ASSESSMENT AND
MONITORING SYSTEM (BAMS) OF EL NIDO MANAGED
RESOURCE PROTECTED AREA (ENMRPA) FOR DRY SEASON



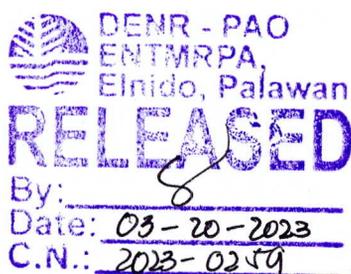
This pertains to target 001 Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023.

Please be informed that personnel of this office conducted the above-mentioned activity on March 10, 2023. The activity includes the monitoring of fauna, water quality and documenting of threats in the established Biodiversity Assessment and Monitoring System (BAMS) of ENMRPA located from Brgy. Maligaya, El Nido, Palawan to So. Bobolungan, Brgy. Corong-corong, El Nido, Palawan.

Based on the conducted activity, documentation of wildlife was not attained due to lack of appropriate gear such as high-definition camera lens for ideal photographic evidence as required by the manual on BAMS for terrestrial ecosystem.

This served as the **Means of Verification (MOV)** for the said target activity of ENMRPA-PAMO for Dry Season of CY 2023. Another monitoring will be conducted as soon as the wet season started.

For information and record.



For the PASu,

JENUEL P. CASEL
PMF/Asst. Protected Area Superintendent



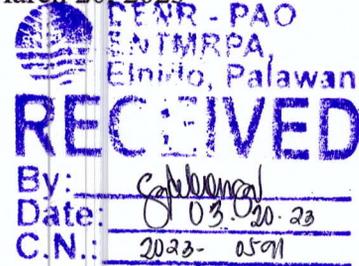
Republic of the Philippines
Department of Environment and Natural Resources
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Community Environment and Natural Resources
EL NIDO MANAGED RESOURCE PROTECTED AREA
Calle Real, Barangay Masagana, El Nido, Palawan, 5313
Contact No. LANDLINE (0917-1103-262)
Email: entmrpa@gmail.com

March 20, 2023

FOR : **The Protected Area Superintendent**
El Nido Managed Resource Protected Area

FROM : **Park Ranger**
El Nido Managed Resource Protected Area

SUBJECT : **CONDUCTED BIODIVERSITY ASSESSMENT AND MONITORING SYSTEM (BAMS) OF EL NIDO MANAGED RESOURCE PROTECTED AREA (ENMRPA) FOR DRY SEASON**



This pertains to target 001 Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023.

Please be informed that the undersigned together with Park Maintenance Foreman Jenuel P. Casel, CMEMP Extension Officer Mariel M. Paladan, Information Officer Aljen Becera and Park Ranger Bret Hart C. Sanogal conducted the above-mentioned activity on March 10, 2023. The activity includes the monitoring of fauna, water quality and documenting of threats in the established Biodiversity Assessment and Monitoring System (BAMS) of ENMRPA located from Brgy. Maligaya, El Nido, Palawan to So. Bobolungan, Brgy. Corong-corong, El Nido, Palawan.

Documentation of wildlife was not attained due to lack of appropriate gear such as high definition camera lens.

Attached in this report is the comprehensive report regarding the conducted activity with photo documentation.

This served as the **Means of Verification (MOV)** for the said target activity of ENMRPA-PAMO for Dry Season of CY 2023. Another monitoring will be conducted as soon as the wet season started.

For information and record.


STEVEN JOHN B. ANDAO

Name of Protected Area: **El Nido Managed Resource Protected Area (ENMRPA)**

Name of PAMB: **El Nido Managed Resource Protected Area**

Dry Season of Year **2023**

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4. Threats Recorded
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1. Objectives

The BAMS aims to provide the Protected Area Superintendents and field implementers a standardized method of assessing and monitoring terrestrial ecosystem. The results will be used in implementing science-based management interventions and in the formulation or updating of the respective Protected Area Management Plans and other Conservation Plans. These will be also used in updating bio-physical profiles and development of relevant reports on the state of biodiversity and protected areas (*Section 1. BMB Technical Bulletin No. 2016-05*).

2. Introduction

A protected area is defined by the IUCN as “clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (*Dudley 2008:8*)

Thus, protected area aim to conserve nature and sustain ecosystem services through managing space. Managers of this area or space must therefore not only know what types of ecosystems, species and ecosystem services are in the area/space they are overseeing, but their abundance and distribution as well. Since many protected areas are often meant to serve as natural capital or reproductive stock to provide for the broader ecosystem (i.e., river basin and coastal/marine area) of which they are a part, then managers should know the types, abundance and distribution of ecosystem, species and ecosystem services both inside and outside the protected area.

The Biodiversity Assessment and Monitoring System (BAMS) is a tool for scientific assessment of the current status of terrestrial biodiversity, habitat quality and certain ecosystem services. It is used to establish a baseline for long-term monitoring and management and determine trends in ecosystem and species abundance and diversity (*Section 3. BMB Technical Bulletin No. 2016-05*).

The ENMRPA BAMS site has a stretch of two (2) kilometers traversing the mountainous area of Brgy. Maligaya, El Nido, Palawan to So. Bobolungan, Brgy. Corong-corong, El Nido, Palawan and has a two (2) hectares Permanent Monitoring Area consisted of fifty (50) Plots and each plots have an area of four hundred square meters (20mx20m) where regular monitoring of flora will be conducted.

Date: March 20, 2023

Prepared by:


STEVEN JOHN B. ANDA
Park Ranger

Noted by:

For the PASu,


JENUEL P. CASEL
PMF/Asst. PASu, ENMRPA

3. Analyses of Gathered Data

3.1. Onsite Monitoring and Measurements using Water Quality Multiparameter (HORIBA U-5000G)

WATER QUALITY MONITORING FIELD DATA FORM

SITE : ENMRPA-BAMS SITE
 Date of Sampling : February 10, 2023
 Sampling Team : ENTMRPA-PAMO

Parameter	Sampling Station	
	1. Maligaya	2. So. Bobolungan
GPS Coordinates	11°10'40" N, 119°23'34" E	11°10'40" N, 119°23'34" E
Time of Sampling	10:09 AM	3:05 PM
Cloud Cover (%)	30	25
Weather Condition	Sunny, partly cloudy	Sunny, partly cloudy
Visual Color of Water	Clear	Clear
Other Observations	Forest litters	Forest litters, freshwater prawns
In situ Analysis (Multiparameter Checker)		
pH	6.5	7.6
Temperature (°C)	28.83	28.27
Dissolved Oxygen (mg/L)	8.24	6.64
Conductivity (µS/cm)	0.12	0.104
Turbidity (NTU)	6.39	8.13
Salinity (ppt)	0.06	0.05
Total Dissolved Solid (g/L)	0.078	0.067
Oxidation Reduction Potential or ORP (mV)	160	133
Transparency (cm)		

Remarks: monitoring of water quality for site 1 was conducted in a manmade water reservoir since the adjacent water tributary has dried out.

Figure 1. Water Quality Monitoring Field data form

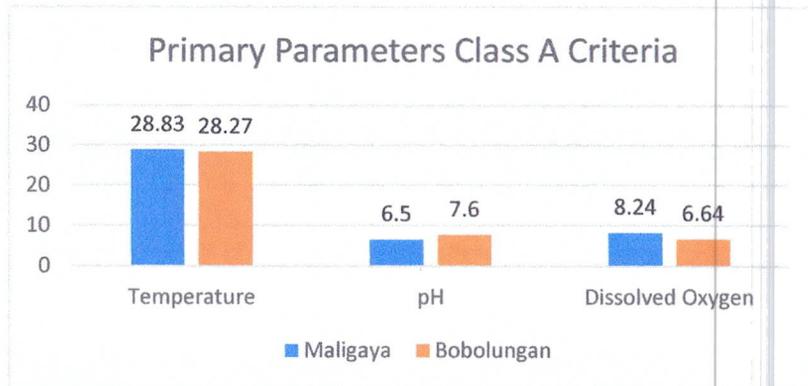


Figure 2. Comparison of primary parameters.

Parameters	Maligaya	Remarks (Class A Criteria)	Bobolungan	Remarks (Class A Criteria)
Temperature (26-30°C)	28.83	pass	28.27	pass
pH (6.5-8.5)	6.5	pass	7.6	pass
Dissolved Oxygen (5 minimum)	8.24	pass	6.64	pass

Figure 3. Analysis of primary parameters.

Figure 3 shows that both sites passed the desired temperature, pH and Dissolved Oxygen per Class A criteria of Table 3. Water Quality Guidelines for Primary Parameters based on DAO 2016-08 and Water Body Classification is also based on its Table 1. Water Body Classification and Usage of Freshwater.

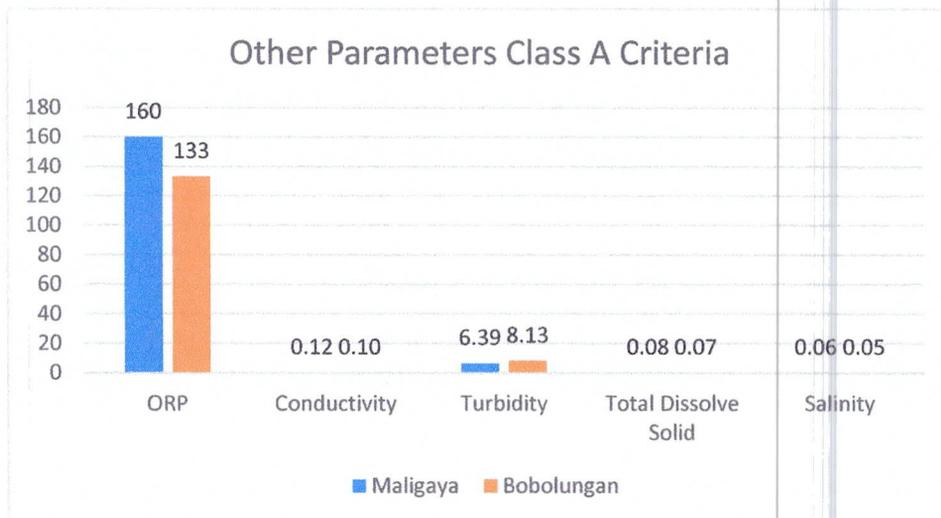


Figure 4. Comparison of other related Parameters.

Parameters	Maligaya	Bobolungan
ORP	160	133
Conductivity	0.12	0.10
Turbidity	6.39	8.13
Total Dissolve Solid	0.08	0.07
Salinity	0.06	0.05

Figure 5. Records of other Related Parameters

Figure 5 shows the recorded conductivity, turbidity, salinity and total dissolved solid. These parameters are not directly affecting the water quality unless there are significant or considerable changes.

3.2. Wildlife Monitoring of Terrestrial Vertebrate Group (Modified Strip Transect).

PA Name: El Nido Managed Resource Protected Area

Established Transect Route: Brgy. Maligaya to So. Bobolungan, Brgy. Corong-corong, El Nido, Palawan (2km) transect.

Date	Priority Species Recorded	No. of Individual Recorded			Total
		Heard	Seen	Tracks/Trail	
March 10, 2023	Melodious Babbler	3			3
	Palawan Bulbul	6			6
	Black-naped Oriole	4			4
	Hooded Pitta	2			2
	Zebra Dove	3			3
	Brown Shrike	2			2
	Palawan Blue Flycatcher	3			3
	Blue-tailed Bee eater	1			1
	Palawan Porcupine			1	1
	Stork-billed Kingfisher	2			2
	Citrine Canary Flycatcher	2			2
	White-vented Shama	2	2		4
	Racket-tail Parrot	2			2
	Flower pecker		2		2
	Monarch		3		3
	Palawan Hornbill	2			2
	Sulphur-bellied Bulbul		2		2
	Ashy-fronted Bulbul	1			1
	Palawan Tit	2			2
	Philippine Pied Fantail	1			1
	Great Slaty Woodpecker	2			2
Frogmouth		1		1	
Grey Imperial Pigeon	2			2	
Common Emerald Dove		2		2	
Pin-Striped Tit-Babbler	2			2	
Grand Total		44	12	1	57

Figure 6. Wildlife Recorded by heard, seen and tracks.

Figure 6 Shows that a total of forty-four (44) fauna were heard, twelve (12) were seen and one (1) was identified thru tracks/trail and the most recorded fauna is Palawan Bulbul and the least are Blue-tailed Bee-eater, Palawan Porcupine, Ashy-fronted Bulbul, Philippine Pied Fantail and Frogmouth with a grand total of fifty-seven (57) fauna recorded.

4.Threats Recorded



Barbed wire fencing along the established 2km transect.

5. Photo Documentation



ENMRPA BAMS signage.



The team during the water quality monitoring at 1st station (Maligaya).

CERTIFICATION

This is to certify that the above photos were true and correct and taken during the Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023 on March 10, 2023.


ALJEN BECERA
Information Officer



Photo showing the dried-out stream at site no. 1 (Maligaya).



Park Ranger Andao during the monitoring of fauna.

CERTIFICATION

This is to certify that the above photos were true and correct and taken during the Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023 on March 10, 2023.

ALJEN BECERA
Information Officer



Photo showing the trail of Palawan Porcupine.



The monitoring team during the trek to BAMS site.

CERTIFICATION

This is to certify that the above photos were true and correct and taken during the Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023 on March 10, 2023.

ALJEN BECERA
Information Officer



Park Ranger Andao during the water quality monitoring at 2nd station (So. Bobolungan).



Photo showing the monitoring team after the conduct of activity.

CERTIFICATION

This is to certify that the above photos were true and correct and taken during the Biodiversity Assessment and Monitoring System (BAMS) monitoring of Fauna under Protected Areas, Caves and Wetlands Development and Management Sub-Program for Dry Season of CY 2023 on March 10, 2023.


ALJEN BECERA
Information Officer