



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Provincial Environment and Natural Resources Office
Region IX, Zamboanga Peninsula
Ipil, Zamboanga Sibugay
(062) 955-2507 penrozambosibugay@denr.gov.ph

DENR-PENRO Zamboanga Sibugay
Technical Services Division

ENDORSEMENT

FOR : THE REGIONAL EXECUTIVE DIRECTOR
DENR-RIX, PCCARGC
Balintawak, Pagadian City

FROM : THE PENR OFFICER
DENR, PENRO, Ipil, Zamboanga Sibugay

SUBJECT : SUBMISSION OF CONSOLIDATED REPORT ON FLYING FOX
MONITORING FOR THE SECOND QUARTER OF CY 2022
UNDER PENRO SIBUGAY AOR

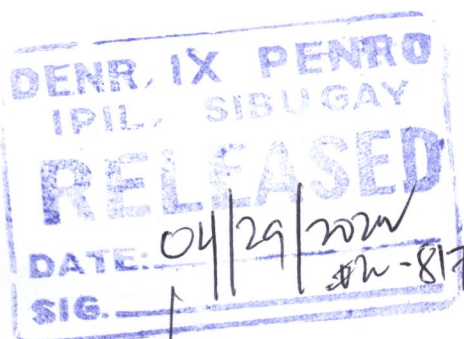
DATE : APRIL 29, 2022

Respectfully submitting to your end is the consolidated report on Flying Fox Monitoring for the Second Quarter of CY 2022 under CENROs Zamboanga City, Kabasalan and Imelda.

Please refer to the attached matrix for your reference.

For information and record.


EDGARDO P. MONTOJO



Threatened Species Conservation and Management Report

REGION: Zamboanga Peninsula
Period covered: April Quarter, CY 2022

Instruction: The threatened species report matrix presents the consolidated and summary of field activity reports of CENROs and PENROs, including activity reports of partners organizations, on threatened species included in the Department's annual operational planning guidelines. The summary report matrix should be submitted on a quarterly basis and should be substantiated by narrative report, including the prescribed data sheets (e.g. prescribed for certain species of field offices).

Priority Threatened Species for monitoring (refer to the National Expenditure Guidelines for threatened species applicable to your region)	Population verification survey/monitoring		Habitat management		Rescue and release		Other Activities		Conclusions and recommendations (e.g findings, issues and concerns arising from the analysis of the consolidated data, and corresponding recommendations on follow up actions to address threats./issues or improved conservation effort)
	Location (with coordinates)	No. of individuals sighted or population count/ estimate per site	Habitat managed inside/outside PAs	Threats observed/ documented (incidence of habitat destruction, illegal hunting, illegal trade, strandings,	No. of individuals rescued/ rehabilitated	No. of individuals released	Communication, Education, Participation, and Awareness (CEPA)	Partnership with other organizations	
1. Flying Fox	1. Lala, Slay, Zamboanga Sibugay (7° 44' 17.1" N 122° 48' 7.099" E)	Two Hundred Forty-Eight Thousand One Hundred Sixty-Seven (248,167) heads of <i>Pteropus vampyrus</i> and <i>Acerodon jubatus</i>	Kabug Mangrove Park and Wetlands	None	None	None	None	None	The team positioned themselves in different monitoring stations particularly in the established platform of LGU-Slay, floating cottage, river junction and back portion of the said area to record all the exiting bats. As identified, mostly of the bats roosted in this area is commonly known as Large Flying fox (<i>Pteropus vampyrus</i>) with little number of Golden-crowned Flying fox (<i>Acerodon jubatus</i>). The team will continue to monitor the Bats or Flying foxes together with assistance of LGU and BLAGU on the identified roosting sites in support of the CDS PENRO Zamboanga Sibugay personnel since the monitoring is attached to MAGAO funded project in the monitoring of Sibugay Coastal Wetlands.
	2. Cabugan Island, Olturanga Island (7° 23' 10" N 122° 47' 13" E)	Twenty-nine Thousand One Hundred Thirty-six (29,136) heads of Large flying fox (<i>Pteropus vampyrus</i>)	None	None	None	None	None	None	Findings: -During the team's monitoring, the population count of large flying fox species (<i>Pteropus vampyrus</i>) at Cabugan Island, Olturanga was (29,136) where majority of the population flew towards east and north east directions.
	3. Lipacan Island, Malanagas, ZSP (7° 36' 51" N 123° 2' 6" E)	Eleven Thousand Three Hundred Fifty-Nine (11,359) heads of Large Flying fox (<i>Pteropus vampyrus</i>) and exit count of (20,000) Twenty Thousand heads of Large flying fox (<i>Pteropus vampyrus</i>)	None	None	None	None	None	None	Findings: - In Lipacan, Malanagas, Zamboanga Sibugay there were 11,359 large flying fox (<i>Pteropus vampyrus</i>) recorded during the bat monitoring in the site and most of the bats flew towards northeast and southeast directions. Nevertheless, no threats has been observed during the conduct of monitoring of roosting bats and accounted about forty-eight (48) Pagaipa species with roosting bats that has estimated population of Twenty Thousand (20,000) heads of Large flying fox.

	4. Ticapul, Zamboanga City (N 7° 23' 7" E 122° 19' 22")	Three Hundred Twenty-four (324) roost count of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>) and exit count record of Two Hundred Ninety-Eight (298) of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>)	None	None	None	None	None	None	None	During the monitoring at the Bungalon Area adjacent to Jojo Gregorio fishpond. Proper documentation and data were gathered and noted in the attached survey form. Population estimate through roost count was done and resulted to a total of 324 bats of mixed Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>). The total number comprises an estimate of 20% <i>P. hypomelanus</i> and 80% <i>P. vampyrus</i> . The team also conducted bats exit count with an estimated population of 298 bats. An interview was also made with the fishpond operators and local residents in the area, the local residents are willing to support and help the departments program in the protection/conservation of the said wildlife species.
	5. Great Sta. Cruz Island, Zamboanga City (6° 51' 59" N 122° 4' 9" E)	Three thousand One Hundred Sixty-Eight (3,168) heads of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>) and an estimated exit count of One Thousand Thirty-nine (1,039) heads of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>)	None	None	None	None	None	None	None	The team was able to record an estimated count/population of Three thousand one Hundred sixty-eight (3,168) heads consisting of mixed of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>). Per observation, the dominant species is the Large flying fox comprising of 80% of the total population counted. Similarly, the team conducted bats exit count within RT Lim Boulevard area and recorded an estimated count of One thousand thirty-nine (1,039) heads of Large flying fox and small flying fox.
	6. Tigbucay, Tungawan, Zamboanga Sibugay (51° N 43° 19' 833334)	Twenty-four Thousand Four Hundred Four (24,404) heads of Large Flying fox (<i>Pteropus vampyrus</i>)	None	None	None	None	None	None	None	The team was divided into 4 groups/stations and observed only one species which is Large flying fox (<i>Pteropus vampyrus</i>). The team will continue to monitor the Bats or flying foxes together with assistance of LGU and BLGU on the identified roosting sites in support of the CDS-PENRC Zamboanga Sibugay personnel since the monitoring is attached to MAGAD funded project in the monitoring of Sibugay Coastal Wetlands.

Prepared by: *


 THERANCE M. SOMERA
 CDS Staff

Reviewed By:


 GERARDO M. FERNANDEZ
 Chief, Conservation and Development Section



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Community Environment & Natural Resources Office
CENRO ZAMBOANGA CITY

Gen. Vicente Alvarez St., Zamboanga City
(062)957-4992 (062)933-7479 cenrozamboangacity@gmail.com

MEMORANDUM

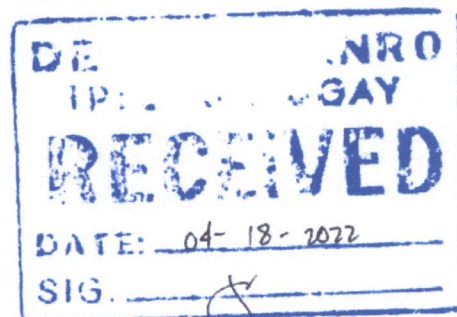
FOR : THE REGIONAL EXECUTIVE DIRECTOR
DENR IX PCCA Regional Gov't Center
Balintawak, Pagadian City

THRU : THE PENR OFFICER
PENRO, Zamboanga Sibugay
Ipil, Zamboanga Sibugay

FROM : THE OIC-CENR OFFICER
This Office

SUBJECT : ACCOMPLISHMENT REPORT ON THE CONDUCT OF
MONITORING OF BATS ROOSTING SITE

DATE : APRIL 13, 2022



n- 243

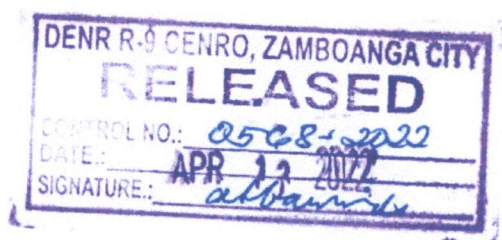
Respectfully forwarded to that end is the accomplishment report with regards to the above cited subject conducted on April 5-8, 2022 at Barangay Tictapul and Sta. Cruz Island, Zamboanga City

ACTIVITY	SUMMARY OF ACCOMPLISHMENT
MONITORING OF THREATENED SPECIES---	
BATS ROOSTING SITE AT GREAT STA. CRUZ ISLAND Z.C	
Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>)	<ul style="list-style-type: none">➤ The team was able to monitor roosting site/s of bats at Great Sta. Cruz Island, this City. The team was able to locate the actual bats roosting site particularly at the Northeast portion from the community area which is more or less 200 meters with a geographic coordinates of Latitude 6°51'59"N, Longitude 122° 4'9"E. Significantly, the roosting site is covered with dense mangrove species.➤ The team was able to record, an estimated count/population of Three thousand one hundred sixty-eight (3,168) heads consisting of mixed Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>). Per observation, the dominant species is the Large flying fox comprising of about 80% of the total population counted.

	<ul style="list-style-type: none"> ➤ Similarly, the team conducted bats exit count within R.T. Lim Boulevard area at around 6:05 in the evening. An estimated count population of One thousand thirty-nine (1,039) of Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>) were recorded.
BATS ROOSTING SITE AT BARANGAY TICTAPUL, Z.C Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>)	<ul style="list-style-type: none"> ➤ The team also monitored the Bats roosting site at Bungalon area, Barangay Tictapul, this City, last April 5, 2022. The team was able to noticed/observed the presence of bats in the said area. However, during the previous monitoring conducted that there were no bats recorded on the same site. ➤ Population estimate through roost count was done. A total of Three hundred twenty-four (324) bats of mixed Large flying fox (<i>Pteropus vampyrus</i>) and Small flying fox (<i>Pteropus hypomelanus</i>). The total number comprises an estimate of 80% <i>P. vampyrus</i> and 20% <i>P. hypomelanus</i>. ➤ The team also conducted bats exit count using manual counters. A total of two hundred ninety-eight (298) bats were counted heading towards Barangay Vitali.

For information and record.


 JAIME C. SALVADOR





Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Community Environment & Natural Resources Office
CENRO ZAMBOANGA CITY
Gen. Vicente Alvarez St., Zamboanga City
(062)957-4992 (062)933-7479 cenrozamboangacity@gmail.com

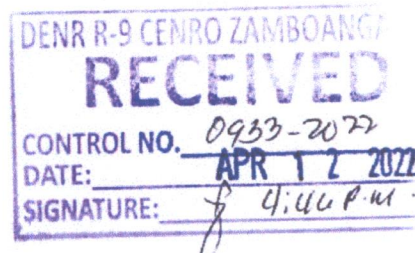
MEMORANDUM

FOR : THE OIC-CENR OFFICER
CENRO ZAMBOANGA CITY

FROM : THE UNDERSIGNED
This Office

SUBJECT : ACCOMPLISHMENT REPORT ON MONITORING OF
BATS ROOSTING SITE AT GREAT STA. CRUZ ISLAND,
STA. BARBARA, ZAMBOANGA CITY.

DATE : APRIL 11, 2022



Please be informed that the undersigned conducted monitoring activities on Bats roosting site at Great Sta. Cruz Island, this City last April 5-8, 2022.

On April 5, 2022 at around 7:00 in the morning, the undersigned proceeded to Great Sta. Cruz Island via motorized pump boat from main land for about 30 minutes travel of more or less 3 kilometers. Upon arrival in the said Island, (community area) the team embarked on a boat paddling towards the roosting site near the community area for a clearer view and proper documentation and observation.

Fortunately, team was able to identify the bats roosting site located at the Northeast portion from the community area with more or less 200 meter having a geographic coordinates of Latitude 6°51'59"N, Longitude 122° 4'9"E. significantly, the roosting site is covered with dense mangrove species.

The team was able to record an estimated count/population of Three thousand one hundred sixty-eight (3,168) heads of mixed **Large flying fox** (*Pteropus vampyrus*) and **Small flying fox** (*Pteropus hypomelanus*). Per observation, the dominant species is the Large flying fox comprising of about 80% of the total population counted. During the conduct of the monitoring activities, the team was not able to go near the roosting tree due to dense mangrove vegetation. However, was not able to take geo-tagged photos and video footage due to unfavorable weather condition.

On the same day at around 5:00 O'clock in the afternoon, the team conducted bats exit count within R.T. Lim Boulevard area at around 6:05 in

the evening, the team equipped with manual counters, started the counting of bats as seen flying from the Island towards mainland Zamboanga City of which R.T Lim boulevard was their usual flight path to the City's main land in search for food.

It is worthwhile to note that, the said wildlife usually has a permanent roost and temporary roost or a sub-roosting sites. These shifting pattern of roosting area is not new as it was already observed during previous monitoring activities. It was determined before that because of their abundance and roosting characteristic (which is in cluster) most of the roosting tree loss or shed off their leaves due to the excreta or bats waste thus exposing them to direct sunlight. With this, bats tend to transfer to another location/site as their roosting site.

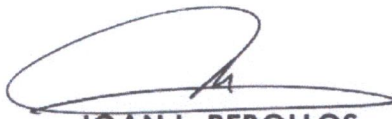
Moreover, these wildlife species are being protected from human disturbance specifically hunting, which, is being secured by the locals residing near and within the area, in close monitoring and supervision with Protected Area Management Office personnel (PAMO-LGU).

For information and record.



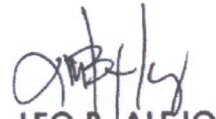
VANESSA JOY G. DAEL

Admin Aide



JOAN L. REBOLLOS

Forest Technician I



LEO B. ALEJO

PMF



KARINA D. ETSRELLA

Forest Technician II



JACQUELINE D. ISHMAEL

Forester I

Noted by:



AARON C. HACHERO

Forester-II/Chief, PAMBCU

**Photo documentation of Bats Roosting site at
Sta Cruz Island**



EXIT COUNT – COLONY SIZE DATA SHEET



Counter's name: Vanessa Joy G. Dael Joan L. Rebollos Karina DT. Estrella Jacqueline D. Ishmael Leo B. Alejo		Date of count: April 6, 2022	Weather: Rainy	Location (general area, province/ municipality) Great Sta. Cruz Island (Part of Great and Little Sta. Cruz Islands PLS) Zamboanga City	
Species in roost: The team was allowed only to stay in the Great Sta Cruz Island until 2 PM by the PAMO LGU due to heavy waves at afternoon. So, the team conducted the Bat exit count at RT Lim Boulevard, Cawa-Cawa, instead. In which, this is the best spot for us to conduct the said activity. The distance of our exit post from the roosting site is almost 6 km.		Counter location (description, landmarks) AND lat/long with direction of counting: Latitude: N 6°54'28" Longitude: E 122°3'53"		Other counters counting the SAME part of the sky as you: NONE	
Start time (first bat flying): 6:05 PM	Stop time: 6:43 PM	Reason for stopping (e.g. too dark, no more bats): No more bats visible in flight at observation posts	Flow of bats at stopping point (e.g. light, medium, heavy): N/A		Number of bats counted in the last minute of the count period:
Number on your counter at end of count: Please indicate here: Counter 1 = 628 Counter 2 = 411		Counting interval (s) (e.g. by 1, 10, 50): Counter 1 = 1 & 10 Counter 2 = 1 & 10		Total number of bats counted (please show math): $628 + 411 = 1,039$	
Reliability of estimate (i.e., problems encountered): More counters needed especially during heavy flow of bats		Describe exit pattern (e.g. dispersed, in a tight column): Dispersed		Direction bats were flying (using compass bearing, describing landmarks, etc.):	



ROOST COUNT & SPECIES ABUNDANCE DATA SHEET

No.1

Counter name(s): Vanessa Joy G. Dael Joan L. Rebollos Karina DT. Estrella Jacqueline D. Ishmael Leo B. Alejo		Date and time of count: April 5, 2022		Roost area (name of province, municipality): Great Sta. Cruz Island (Part of Great and Little Sta. Cruz Islands PLS) Zamboanga City			
View # / total: Unable to determine due to the dense mangrove forest cover		Observer location lat/long: Latitude 6°51'59"N, Longitude 122° 4'9"E		View description: It's the only vantage point			
Tree description (sp.)	Distance to tree (m)	Height (m)	Total # of bats	# Species 1 Giant flying fox (Pteropus vampyrus)	# Species 2 Common Island flying fox (Pteropus hypomelanus)	# Species 3	Comments (reliability, # unidentified, any duplicate counters):
Rhizophora species (bakawan)	Estimate 1-2 km.	5 m above	3,168	80 % of the total number of bats	20 % of the total number of bats		



ROOST CHARACTERISTICS DATA SHEET

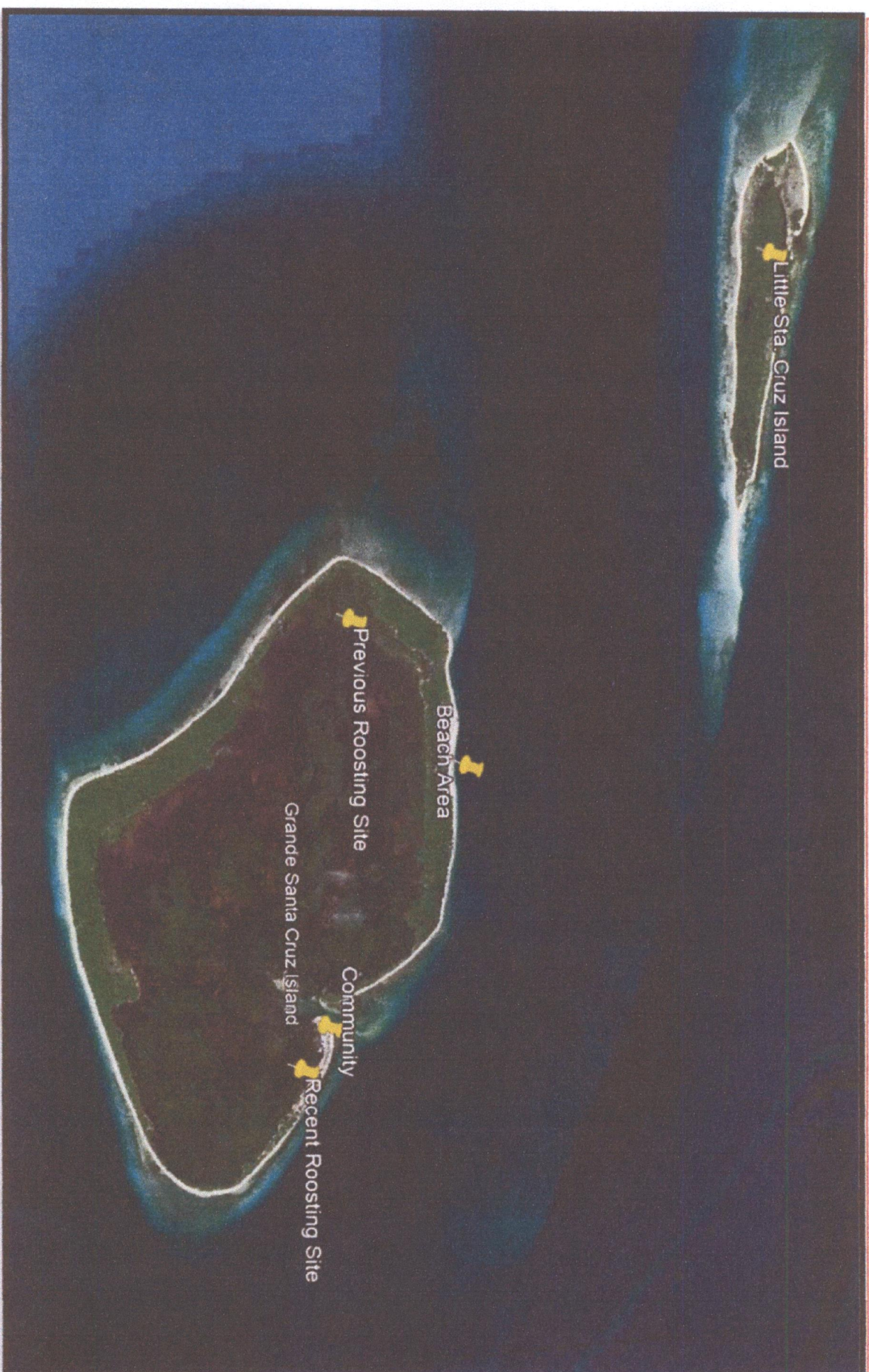
Date: April 5, 2022

No.1

Scribe: Joan L. Rebollos, Karina DT. Estrella, Leo B. Alejo
Vanessa Joy G. Dael, Jacqueline D. Ishmael

Roost location (general area): Great Sta. Cruz Island (Part of Great and Little Sta. Cruz Islands PLS)	Species in roost: Giant flying fox (<i>Pteropus vampyrus</i>), Common island flying fox (<i>Pteropus hypomelanus</i>)	Lat/Long of roost: Latitude 6°51'59"N, Longitude 122° 49'E Elevation of roost: 67 MSL
How close can the roost be approached: Estimated 1-2 kilometers	Estimate percentage of roost perimeter which can be accessed: 25%	Describe bats' reaction to approach of researchers: They make loud noise and flying on a circular motion above the canopy of bakawan trees and flies from one tree to another.
Describe roosting pattern (clumped/with satellites?): Scattered under the shade of leaves and flying above the canopy of bakawan	Describe roost trees/vegetation (type, condition, species roosting differences): Rhizophora species	Describe signs of human access (e.g. trails, garbage, hunting information): Near the community with more or less 202 meters NE direction
# trees within roosting area above 5 meters tall: More than 10 trees	# dead trees above 5 m: NONE	# trees with roosting bats: More than 10 trees
Estimate area containing roosting bats: 500 sq. Meters to 1 Hectares	Topography (e.g. ridge, upper slope, orientation of slope, valley bottom): 0-8% slope	Nearness to river and description (e.g. width, gradient): N/A
Distance to ocean: More or less 200 meters	Human settlements (how close, how many): More or less 180 meters	Roost permanent or changing? Temporal pattern of change? Location of alternative roost sites? Temporal pattern of change, but whole year round they stay within the protected area.
Travel directions and transit time: <ul style="list-style-type: none">- Paseo- Great Sta. Cruz Island (Community area) via pump boat – 25-30 minutes- Roosting site (via yellow boat) – 30-45 minutes	Contacts: Protected Area Management and Biodiversity Conservation Unit (PAMBCU) CENRO ZAMBOANGA CITY Gen. Vicente Alvarez St., Zamboanga City	

**MAP OF BATS ROOSTING SITE AT GREAT STA. CRUZ ISLAND,
STA. BARBARA, ZAMBOANGA CITY**





Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Community Environment & Natural Resources Office
CENRO ZAMBOANGA CITY

Gen. Vicente Alvarez St., Zamboanga City

(062)957-4992 (062)933-7479 cenrozamboangacity@gmail.com

MEMORANDUM

FOR : THE OIC-CENR OFFICER
CENRO ZAMBOANGA CITY

FROM : THE UNDERSIGNED
This Office

SUBJECT : ACCOMPLISHMENT REPORT ON MONITORING
OF BATS ROOSTING SITE AT TICTAPUL, ZAMBOANGA
CITY.

DATE : APRIL 11, 2022



Pleased be informed that last April 5, 2022 at around 6:30 in the morning the team proceeded to Sitio Barangay Tictapul to coordinate with Barangay Officials with regards to the abovementioned subject.

As per previous monitoring conducted there were no sightings of bats in the said area. According to Mr. Jojo Gregorio and some local residents, it could be that the bats were disturbed due to the noise from fireworks during the New Year's Eve celebration.

On board a hired Pump-Boat on our way toward the area, the undersigned observed mangroves vegetation along the waterways. As the team head towards Bungalon area, at a distance, several bats can be seen at the mangrove trees with no leaves, exposing the bats in the area. However, it was noticed/observed that the population of bats had decreased in number as compared to last year's monitoring.

During the monitoring at the Bungalon area adjacent to Jojo Gregorio fishpond, a 200-meter walk along fishpond dikes to reach the Bats roosting site. Proper documentation and data were gathered and noted in the attached survey form. Population estimate through roost count was done and resulted to a total of 324 bats of mixed **Large flying fox** (*Pteropus vampyrus*) and **Small flying fox** (*Pteropus hypomelanus*). The total number comprises an estimate of 20% *P. hypomelanus* and 80% *P. vampyrus*.

The team also conducted bats exit count positioned at about 600 meters northwest of the roosting site, equipped with manual counters. The bats were counted as the wildlife leave the roosting site heading towards northwest

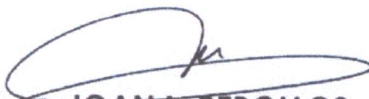
direction to the mountains of Barangay Vitali. A total count of 298 bats were recorded. The counts breakdown was recorded in the attached EXIT COUNT – COLONY SIZE DATA SHEET.

In an interview made with the fishpond operators and local residents in the area, the locals are willing to support and help the departments program in the protection/preservation/conservation of the said wildlife species including waterbirds that are commonly seen in the area.

For information and record.



VANESSA JOY G. DAEL
Admin Aide VI



JOAN L. REBOLLOS
Forest Technician I



LEO B. ALEJO
PMF

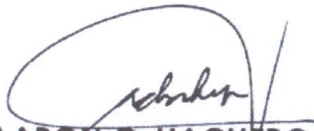


KARINA D. ETSRELLA
Forest Technician II



JACQUELINE D. ISHMAEL
Forester I

Noted by:



AARON C. HACHERO
Forester-II/Chief, PAMBCU

**Photo documentation of Bats Roosting site at
Barangay Limaong, Zamboanga City**



PHOTOS SHOWING THE BATS ROOSTING SITE



*PHOTOS SHOWING THE BATS EXIT COUNT LAST APRIL 5, 2022 AT
BUNGALON AREA, SITIO MATARLING, TICTAPUL, ZAMBOANGA CITY*



EXIT COUNT – COLONY SIZE DATA SHEET

Counter's name: Joan L. Rebollos Karina DT. Estrella Leo B. Alejo Vanessa Joy G. Dael Jacqueline D. Ishmael		Date of count: April 5, 2022	Weather: mostly cloudy	Location (general area, province/ municipality) Tictapul, Zamboanga City	
Species in roost: The team conducted the Bat exit count at residence of Mr. Segundino R. Gregorio for this is the best spot to conduct the said activity for its wide view of the sky. The distance of our exit post from the roosting site is almost 600 m.		Counter location (description, landmarks) AND lat/long with direction of counting: Latitude: N 7°23'7" Longitude: E 122°19'22"		Other counters counting the SAME part of the sky as you: NONE	
Start time (first bat flying): 5:35 PM	Stop time: 6:10 PM	Reason for stopping (e.g. too dark, no more bats): No more bats visible in flight at observation posts		Flow of bats at stopping point (e.g. light, medium, heavy): medium	Number of bats counted in the last minute of the count period: 7
Number on your counter at end of count: Please indicate here: Counter 1 = 193 Counter 2 = 105		Counting interval (s) (e.g. by 1, 10, 50): Counter 1 = by 1 & 10 Counter 2 = by 1 & 10		Total number of bats counted (please show math): $193 + 105 = 298$	
Reliability of estimate (i.e. problems encountered): NONE		Describe exit pattern (e.g. dispersed, in a tight column): Dispersed		Direction bats were flying (using compass bearing, describing landmarks, etc.): Northwest direction	



ROOST COUNT & SPECIES ABUNDANCE DATA SHEET

Counter name(s): Joan L. Rebollos Karina DT. Estrella Leo B. Alejo Vanessa Joy G. Dael Jacqueline D. Ishmael				Date and time of count: April 5, 2022 Start time: 1:45 pm End time: 2:17 pm		Roost area (name of province, municipality): Tictapul, Zamboanga City	
View # / total: 2/4		Observer location lat/long: N 7°23'7" E 122°19'22"		View description: It's the only vantage point of the roost			
Tree description (sp.)	Distance to tree (m)	Height (m)	Total # of bats	# Species 1 Giant flying fox (Pteropus vampyrus)	# Species 2 Small flying fox (Pteropus hypomelanus)	# Species 3	Comments (reliability, # unidentified, any duplicate counters):
Rhizophora species (bakawan)	10 m	8 m	324	259	65		Additional counters needed for more accurate count.
Xylocarpus species							



ROOST CHARACTERISTICS DATA SHEET

Date: April 5, 2022



Scribe: Joan L. Rebollos, Karina DI. Estrella, Leo B. Alejo
Vanessa Joy G. Dael, Jacqueline D. Ishmael

Roost location (general area): Tictapul, Zamboanga City	Species in roost: Giant flying fox (<i>Pteropus vampyrus</i>), Small flying fox (<i>Pteropus hypomelanus</i>)	Lat/Long of roost: N 7°23'7" E 122°19'22" Elevation of roost: 76 m. ASL
How close can the roost be approached? 10 meters	Estimate percentage of roost perimeter which can be accessed: 70 %	Describe bats' reaction to approach of researchers: The bats makes loud noises and a few was flying from one tree to another.
Describe roosting pattern (clumped/with satellites?): Clumped on branches exposed to the sun	Describe roost trees/vegetation (type, condition, species roosting differences): Rhizophora species and Xylocarpus species	Describe signs of human access (e.g. trails, garbage, hunting information): The roosting site was surrounded by fishponds
# of trees within roosting area above 5 meters tall: 58	# of dead trees above 5 m: 10	# of trees with roosting bats: 7
Estimate area containing roosting bats: 0.60 Hectares	Topography (e.g. ridge, upper slope, orientation of slope, valley bottom): 0-6% slope – flat	Nearness to river and description (e.g. width, gradient): 200m to the nearest river. The river is 25m wide and has a slow flowing gradient
Distance to ocean: 1km	Human settlements (how close, how many): 300m to the nearest human settlement	Roost permanent or changing? Temporal pattern of change? Location of alternative roost sites? Permanent roost but also exhibits temporal pattern.
Travel directions and transit time: Northwest and Southwest	Contacts: Protected Area Management and Biodiversity Conservation Unit (PAMBCU) CENRO ZAMBOANGA CITY Gen. Vicente Alvarez St., Zamboanga City	

MAP OF BAT ROOSTING SITE

Located at
Bungalon area, Tictapul, Zamboanga City

Legend

-  Bats roosting site
-  Casipitan

Bats roosting site

Casipitan

Mahadika Hwy

Google Earth

© 2021 Google
Image © 2021 CNES / Airbus
Image © 2021 Maxar Technologies

3000 ft

N



Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Community Environment & Natural Resources Office
Region IX, Zamboanga Peninsula
Poblacion, Imelda, Zamboanga Sibugay
Email Address: cenr_buugzs@yahoo.com
☎ (062-955-3078)

MEMORANDUM

FOR : The In-Charge, Office of the RED and OIC, ARD for Technical Services
DENR R-IX, PCCA Regional Center, Balintawak, Pagadian City

THRU : The PENR Officer
DENR, PENRO Ipil, Zamboanga Sibugay

FROM : The CENR Officer
DENR, R-9, Imelda, Zamboanga Sibugay

SUBJECT: QUARTERLY REPORT ON THE CONDUCT OF MONITORING OF
THE ROOSTING SITES OF BATS.

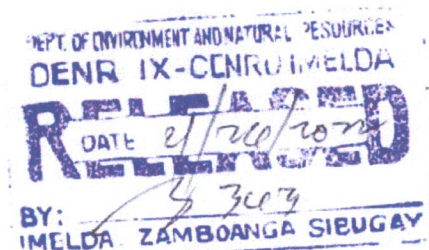
DATE : April 25, 2022

Respectfully forwarded herewith the 2nd quarterly accomplishment report of the Coastal Resource Management Unit (CRMU) of this office on the conduct of bats monitoring on the two identified roosting sites, wherein populations count at Cabugan Island, Olutanga was Twenty-nine thousand one hundred thirty-six (29,136) while in Lipacan, Malangas, accounted Eleven thousand three hundred fifty-nine (11,359) both under the Province of Zamboanga Sibugay.

Please see attached bats monitoring sheets and geo-tagged photo documentation.

For information and record.


PILARITO B. MONTEBON





Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Community Environment & Natural Resources Office
Region IX, Zamboanga Peninsula
Poblacion, Imelda, Zamboanga Sibugay
Email Address: cenr_buugzs@yahoo.com
☎ (062-955-3078)

MEMORANDUM

FOR : The CENR Officer
DENR IX, Imelda, Zamboanga Sibugay

FROM : The Chief, Coastal Resource Management Unit (CRMU)
DENR, RIX, Imelda, Zamboanga Sibugay

**SUBJECT : QUARTERLY REPORT ON THE CONDUCT OF MONITORING
OF ROOSTING SITES OF BATS.**

DATE : April 25, 2022

Respectfully submitted herewith the 2nd quarter accomplishment report of the Coastal Resource Management Unit (CRMU) of this office relative to the above subject in the two identified roosting sites of bats conducted on April 6 and April 8, 2022 at Lipacan, Malangas and Cabugan Island, Calais, Olutanga respectively, both under the Province of Zamboanga Sibugay.

During this period's monitoring at Cabugan Island, Olutanga, Zamboanga Sibugay, the team accounted about (14) Pagatpat species with roosting bats and a population of Twenty-nine thousand one hundred thirty-six (29,136) large flying fox (*Pteropus vampyrus*) species during exit counting with majority of the population flew towards east and north east directions. The activity had been supported by PENRO personnel and in partnership with Barangay Local Government Unit of (BLGU) Calais through its representative Hon. Junis Perialde, Environment Committee Head and Civilian Volunteer Officers (CVO) members.

While in Lipacan, Malangas populations count was lesser than the previous count for the reason that there was a low pressure during the time of counting that accounted only Eleven thousand three hundred fifty-nine (11,359) large flying fox species flying towards northeast and southeast directions. Nevertheless, no threats has been observed during the conduct of monitoring of the roosting sites and accounted about forty-eight (48) Pagatpat species with roosting bats with an estimated population of about Twenty thousand (20,000).

Please see attached bat monitoring sheets and geo-tagged photo documentation.

For information and record.


CLIFF R. DE LEON



ROOST CHARACTERISTICS DATA SHEET

Date: April 8, 2022

Scribe: April 8, 2022

Roost location (general area): Cabugan Island, Calais, Olutanga, Zamboanga Sibugay		Species in roost: <i>Pteropus vampyrus</i>	Lat/Long of roost: 7° 23 '10"N/122° 47' 13"E
How close can the roost be approached? About 10 meters	Estimate percentage of roost perimeter which can be accessed: 1 hectare	Elevation of roost: 57 M	Describe bats' reaction to approach of researchers: Bats became noisy and some were flying around their roost tree.
Describe roosting pattern (clumped/with satellites?): clumped with satellites	Describe roost trees/vegetation (type, condition, species roosting differences): Pagatpat species estimated 40 cm diameter, 15 meters in height and healthy condition	Describe signs of human access (e.g. trails, garbage, hunting information): The island is very accessible through pump-boat ride adjacent to agar-agar plantation and shells collection.	
# trees within roosting area above 5 meters tall: 150	# dead trees above 5 m: 3	# trees with roosting bats: 14	
Estimate area containing roosting bats: 1 hectare	Topography (e.g. ridge, upper slope, orientation of slope, valley bottom): Flat	Nearness to river and description (e.g. width, gradient): 2 kilometers	
Distance to ocean: Undetermined	Human settlements (how close, how many): About 2 kilometers from Brgy Calais with a population of 456 Households or 2,850 people	Roost permanent or changing? Temporal pattern of change? Location of alternative roost sites? Permanent	
Travel directions and transit time: East to west direction and around ten (10) minutes pump-boat ride.		Contacts: Cliff R. De Leon Mobile # 09291061819/09053956899	



ROOST COUNT & SPECIES ABUNDANCE DATA SHEET

Counter name(s): For: William G. Palisoc Abubacar Tungeo Divina B. Alejandra			Date and time of count: April 8, 2022		Roost area (name of province, municipality): Cebu Island, Cebu, Orotanga, Zamboanga Sibugay		
PENRO Personnel: Casmer Hasinlin Aldren Turcolas Giovanni Sumicad Sherwin Denago Adrian Joe Genovia Carl Bulagao Jr. Hendler Discar Gilbert Matunla Miguelito Paduga							
View # / total: 29,136		Observer location lat/long: 7° 23' 12"N/122° 47' 28"E		View description: At Agar-agar Dryer Back Portion of the Island			
Tree description (sp.)	Distance to tree (m)	Height (m)	Total # of bats	# Species 1:	# Species 2	# Species 3	Comments (reliability, # unidentified, any duplicate counters):
Pagalpat species	10 meters		29,136	Pteropus vampyrus 29,136			



EXIT COUNT – COLONY SIZE DATA SHEET

Counter's name: CENRO Personnel: William G. Pallsoc Abubacar Tungco Divina B. Alejandra		Date of count:	Weather:	Location (general area, province/ municipality)	
PENRO Personnel: Casmer Hasinin Sherwin Danago Hendler Discar Miguelito Paduga		April 8, 2022	Fair	Cabugan Island, Calais, Olutanga, Zamboanga Sibugay	
Species in roost:	Counter location (description, landmarks) AND lat/long with direction of counting: At Agar-agar Dryer - 7° 23' 12"N/122° 47' 27"E On boat (Back Portion)		Other counters counting the SAME part of the sky as you: None		
Start time (first bat flying): 6:18 P.M	Stop time: 6:32 P.M	Reason for stopping (e.g. too dark, no more bats): Too dark to count	Flow of bats at stopping point (e.g. light, medium, heavy): Medium	Number of bats counted in the last minute of the count period: Counter 1 (Back Portion)-53 Counter 2 (Solar dryer)- 47 Counter 3 (Solar dryer)- 1 Counter 4 (solar dryer)- 2	
Number on your counter at end of count: Counter 1 (Back Portion)- 478 Counter 2 (Solar Dryer)-1,049 Counter 3 (Solar Dryer)- 141 Counter 4 (Solar Dryer)-933		Counting interval (s) (e.g. by 1, 10, 50): Counter 1 (Back Portion)- by 10 Counter 2 (Solar Dryer)-by 20 Counter 3 (Solar Dryer)-by 10 Counter 4 (Solar Dryer)-by 2	Total number of bats counted (please show math): Counter 1 (Back Portion)=(478 x10) +(53x1)=4,833 Counter 2 (Solar Dryer)=(1,049 x 20)+(47 x1)=21,027 Counter 3 (Solar Dryer)= 141 x 10=1,410 Counter 4 (Solar Dryer)=933x2 =1,866		
Reliability of estimate (i.e., problems encountered): None		Describe exit pattern (e.g. dispersed, in a tight column): Dispersed		Direction bats were flying (using compass bearing, describing landmarks, etc.): > Easting > North Easting	



ROOST CHARACTERISTICS DATA SHEET

Date: April 6, 2022

Scribe: April 6, 2022

Roost location (general area): Lipacan, Malangas, Zamboanga Sibugay		Species in roost: <i>Pteropus vampyrus</i>	Lat/Long of roost: 7° 36' 51"N/123° 2' 6" E	
How close can the roost be approached: About 1 kilometer from the Municipal Port		Estimate percentage of roost perimeter which can be accessed: 60%	Describe bats' reaction to approach of researchers: Bats became noisy and flying above their roost trees.	
Describe roosting pattern (clumped/with satellites?): Clumped with satellites		Describe roost trees/vegetation (type, condition, species roosting differences): Pagetpat species, some trees have dead branches and others are still in good stand.	Describe signs of human access (e.g. trails, garbage, hunting information): The roosting site is very accessible through pump-boat ride from Pobalacion, Malangas, Zamboanga Sibugay.	
# trees within roosting area above 5 meters tall: 72		# dead trees above 5 m: None	# trees with roosting bats: 48	
Estimate area containing roosting bats: About 1 hectare		Topography (e.g. ridge, upper slope, orientation of slope, valley bottom): Flat	Nearness to river and description (e.g. width, gradient): About 300 meters to Lipacan river.	
Distance to ocean: undetermined		Human settlements (how close, how many): About 1-2 kilometers to human settlements with the following population: Brgy Lipacan: 356 Hhs or 1,600 persons (about 1.4 Km to roost area) Brgy. Takling: 162 Hhs or 936 persons Brgy. Pobalacion: 2,120 Hhs or 8,769 persons	Roost permanent or changing? Temporal pattern of change? Location of alternative roost sites? Permanent	
Travel directions and transit time: From east to west direction and about ten minutes' pump-boat ride.		Contacts: Cliff R. De Leon CP # 09291061819/09053956899		



ROOST COUNT & SPECIES ABUNDANCE DATA SHEET

Counter name(s): William G. Palisoc Abubacar G. Tungco Divina B. Alejandra			Date and time of count: April 6, 2022 / 6:11 P.M		Roost area (name of province, municipality): Barangay Lipacan, Malangas, Zamboanga Sibugay		
View # / total: 11,359		Observer location lat/long: 7° 36' 34"N / 123° 2' 8"E 7° 36' 43"N / 123° 1' 44"E			View description: Counter 1-Municipal Port Counter 2 and 3-Lipacan, Malangas		
Tree description (sp.)	Distance to tree (m)	Height (m)	Total # of bats	# Species 1	# Species 2	# Species 3	Comments (reliability, # unidentified, any duplicate counters):
Pagatpat sp.	7 meters	15 meters	11,359	11,359			



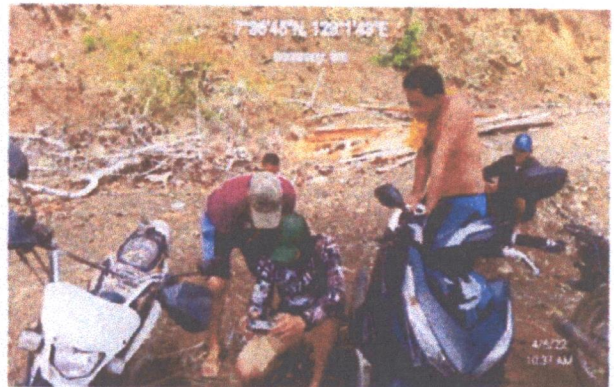
EXIT COUNT – COLONY SIZE DATA SHEET

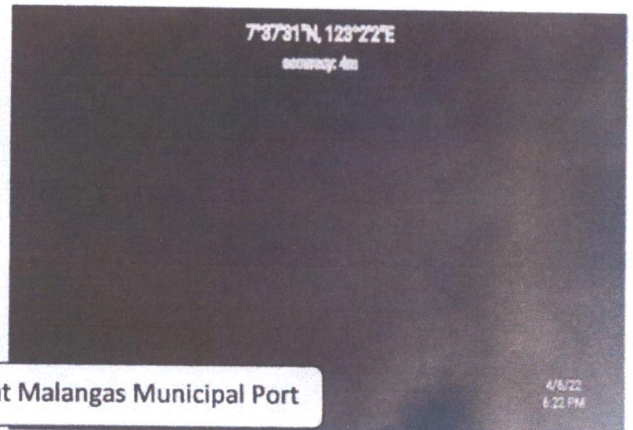
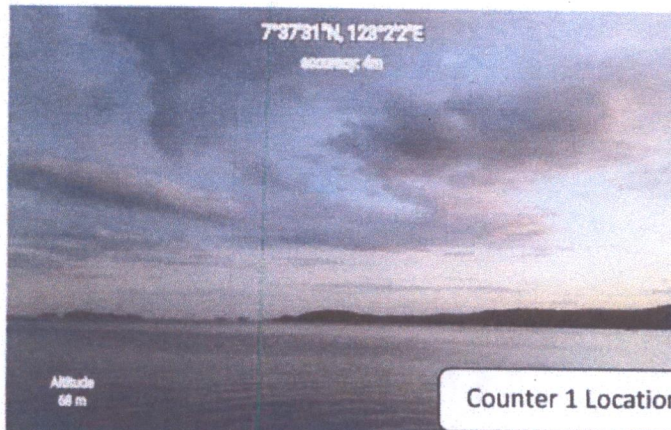
Counter's name: For: William G. Palisoc Abubacar G. Tungco Divina B. Alejandra		Date of count: April 6, 2022	Weather: Rainy	Location (general area, province/ municipality) Lipacan, Malangas, Zamboanga Sibugay	
Species in roost: <i>Pteropus vampyrus</i>	Counter location (description, landmarks) AND lat/long with direction of counting: Counter 1-Municipal Port - 7° 37' 31"N/123° 2' 2"E Counter 2- Lipacan- 7° 36' 43"N/123° 1' 44"E Counter 3-Lipacan-7° 36' 43"N/123° 1' 44"E			Other counters counting the SAME part of the sky as you: None	
Start time (first bat flying): 6:11 P.M	Stop time: 6:22 P.M	Reason for stopping (e.g. too dark, no more bats): Too dark and rainy to count.		Flow of bats at stopping point (e.g. light, medium, heavy) Light	Number of bats counted in the last minute of the count period: Counter 1-Municipal Port-46 Counter 2- Lipacan- 27 Counter 3-Lipacan- 2
Number on your counter at end of count: Counter 1-Municipal Port -156 Counter 2- Lipacan- 65 Counter 3-Lipacan -118		Counting interval (s) (e.g. by 1, 10, 50): Counter 1-Municipal Port by 50 Counter 2- Lipacan by 50 Counter 3-Lipacan by 2		Total number of bats counted (please show math): Counter 1-Municipal Port = (156 x 50) +46= 7,846 Counter 2- Lipacan- (65 x 50) +27= 3,277 Counter 3-Lipacan=118 x2=236 Grand Total = 11,359	
Reliability of estimate (i.e., problems encountered): Weather condition.		Describe exit pattern (e.g. dispersed, in a tight column): Dispersed		Direction bats were flying (using compass bearing, describing landmarks, etc.): > Northeast direction > South east direction	

Photo Documentation

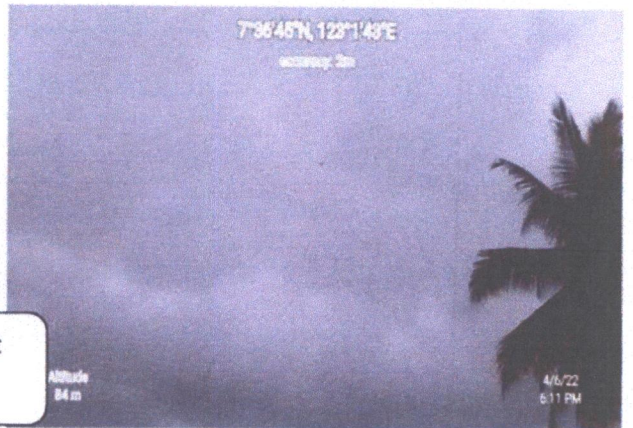
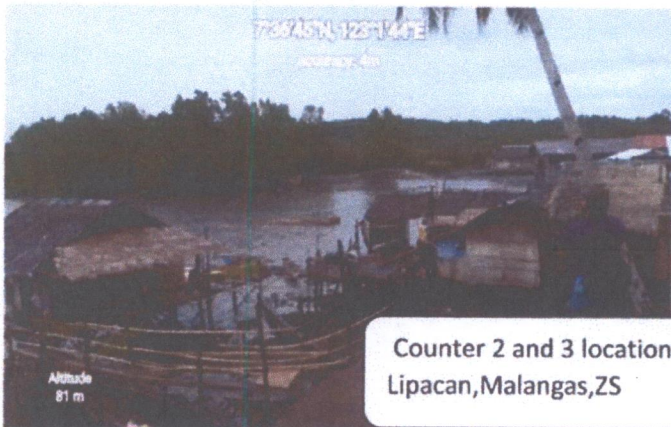
Conduct of Bats Population Survey/Monitoring

at Barangay Lipacan. Malangas, Zamboanga Sibugay on April 6, 2022



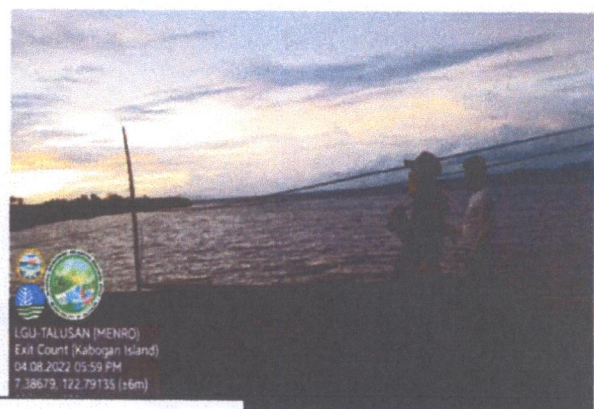
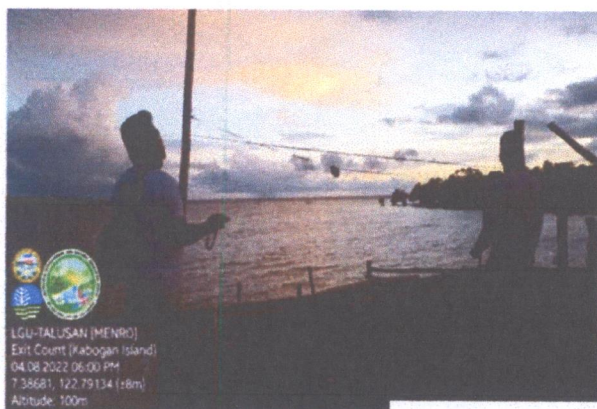


Counter 1 Location at Malangas Municipal Port



Counter 2 and 3 location at Lipacan, Malangas, ZS

Cabugan Island, Calais, Olutanga, Zamboanga Sibugay April 8, 2022



PENRO SibugayTeam during exit cunt



Republic of the Philippines
Department of Environment and Natural Resources
Community Environment and Natural Resources Office
2nd Congressional District
DENR, R9, Simbol, Kabasalan, Zamboanga Sibugay

April 8, 2022

MEMORANDUM

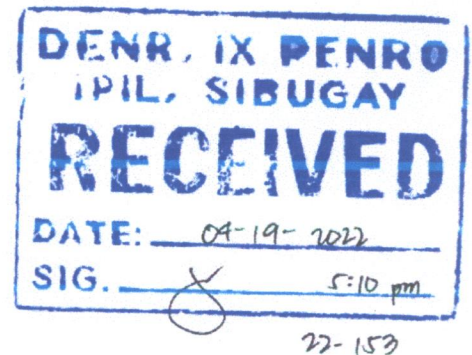
FOR : The Regional Executive Director
DENR, R9, PCCA Complex, Regional Government Center
Balintawak, Pagadian City

ATTENTION : Chief, PAMBC Section

THRU : The OIC-PENR Officer
DENR, R9, PENRO-Zamboanga Sibugay,
Ipil, Zamboanga Sibugay

FROM : The OIC-CENR Officer
DENR, R9, CENRO-Kabasalan,
Simbol, Kabasalan, Zamboanga Sibugay

SUBJECT : MONITORING OF FLYING FOXES/ BATS IN THE IDENTIFIED
ROOSTING SITE AT BARANGAY LAIH, SIAY AND TIGBUCAY,
TUNGAWAN, ZAMBOANGA SIBUGAY

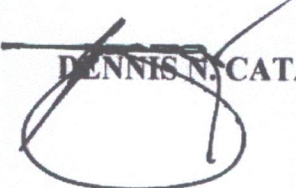


Respectfully submitting herewith is the report pertaining to the above-cited subject for the month of April, 2022, to wit;

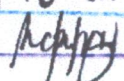
ACTIVITY	SUMMARY OF ACCOMPLISHMENTS
Monitoring of flying foxes/ bats	<p>Please be informed that on April 8, 2022, personnel and staff of the Conservation and Development Section (CDS) of this office together with CDS of PENRO Sibugay jointly conducted monitoring of flying foxes/ bats of roosting sites in the identified roosting sites located at Tigbucay, Tungawan, ZSP and Barangay Laih, Siay, Zamboanga Sibugay.</p> <p>The team composed of two (2) groups, One (1) in Laih, Siay, ZSP and the other in Tigbucay, Tungawan, ZSP for the synchronized monitoring and as a result, the team able to count and estimated a total of 248,167 heads exited in Laih, Municipality of Siay and a total of 24,404 heads exited in Barangay Tigbucay, Tungawan, Zamboanga Sibugay.</p> <p>Moreover, this office will continue to</p>

	monitor Bats or Flying foxes together with the assistance of LGU and BLGU on the identified roosting sites and in support of the CDS PENRO Zamboanga Sibugay personnel since the monitoring is attached to NAGAO funded project implemented by PENRO particularly in the monitoring of Sibugay Coastal Wetlands.

For information and record.


DENNIS N. CATALAN



RELEASED
DENR DENRO-KABASALAN, Z.S.
DATE 4-18-2022 TIME 5:01 PM
BY  #2019



Republic of the Philippines
Department of Environment and Natural Resources
Community Environment and Natural Resources Office
2nd Congressional District
DENR, R9, Simbol, Kabasalan, Zamboanga Sibugay

MEMORANDUM

April 18, 2022

FOR : The OIC-CENR Officer
DENR, CENRO-Kabasalan, Simbol,
Kabasalan, Zamboanga Sibugay

FROM : REYNALDO C. CUARESMA ET AL
Conservation and Development Section
This Office

SUBJECT : MONITORING OF FLYING FOXES/ BATS IN THE IDENTIFIED
ROOSTING SITE AT BARANGAY LAIH, SIAY AND TIGBUCAY,
TUNGAWAN, ZAMBOANGA SIBUGAY

Please be informed that on April 8, 2022, the undersigned personnel of this office together with representative from CDS PENRO- Zamboanga Sibugay personnel and with representatives from MENRO-Tungawan, ZSP conducted the monitoring of the two (2) roosting site of Flying Foxes/ Bats located in Barangay Laih, Siay, Zamboanga Sibugay and Tigbucay, Tungawan, Zamboanga Sibugay.

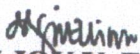
The team composed of two (2) groups, one (1) proceeded to Barangay Laih, Siay, ZSP and the other group went to Barangay Tigbucay in Tungawan, Zamboanga Sibugay doing the synchronize monitoring of the said roosting. On Kabug Mangrove Park and Wetlands at Barangay Laih, Siay, ZSP roosting site, the group divided into four (4) different stations. On the other hand, group Tigbucay conducted the said monitoring together with MENRO Tungawan representatives and as a result, the team witnessed an enormous group of identified Large Flying (*Pteropus vampyrus*). Please refer to the below tabulated data observed from both of the monitoring sites, to wit;

Location of Roosting Site	Estimated number of Bats departed	Start of Departure	End of Departure
1. Tigbucay, Tungawan, ZSP	24,404 heads	6:11 PM	6:30 PM
2. Laih, Siay, ZSP	248,167 heads	6:02 PM	6:28 PM


Moreover, this office will continue to monitor regular said activity and promote protection of Bats and Wildlife with the assistance of LGU and BLGU with much help to the CDS PENRO Zamboanga Sibugay personnel since the monitoring is attached to NAGAO funded project implemented by PENRO particularly in the monitoring of Sibugay Coastal Wetlands.

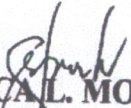
Please see attached geo-tagged photos during the conduct of said activity.

For information and record.



MARY JOY V. ELLIMA
For. I/ Chief, BCU


MARK R. ALPAD
FT II/ GIS Focal


CIRILO B. BAJAO
Scaler


JESICA L. MOLAS
FT-I

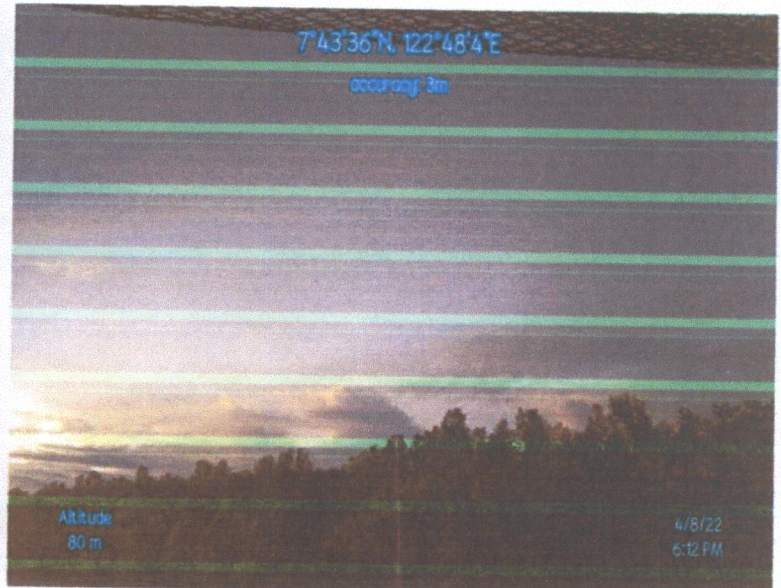

SERGIE S. AFRICA
FT-I


ROGER PAGLINAWAN
FT-I

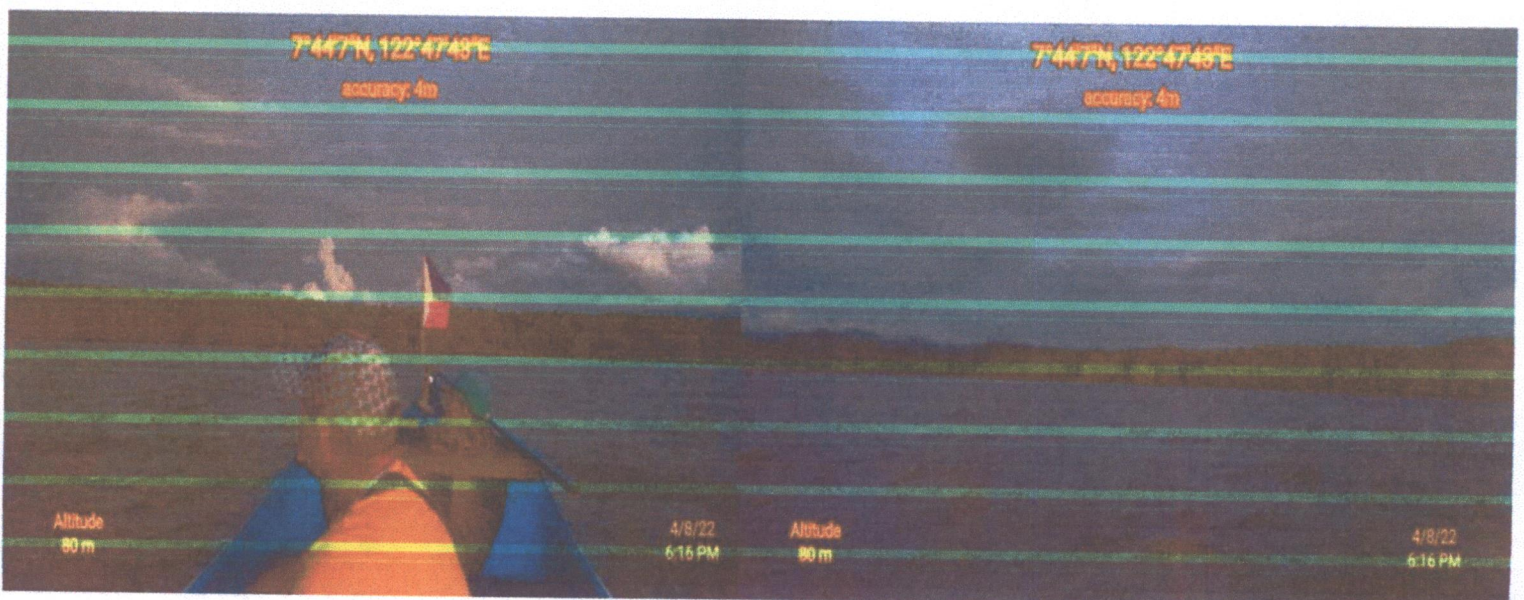
Pictures showing the bat exit count in Station I (platform) located at Kabug Island, Laih, Siay, ZSP



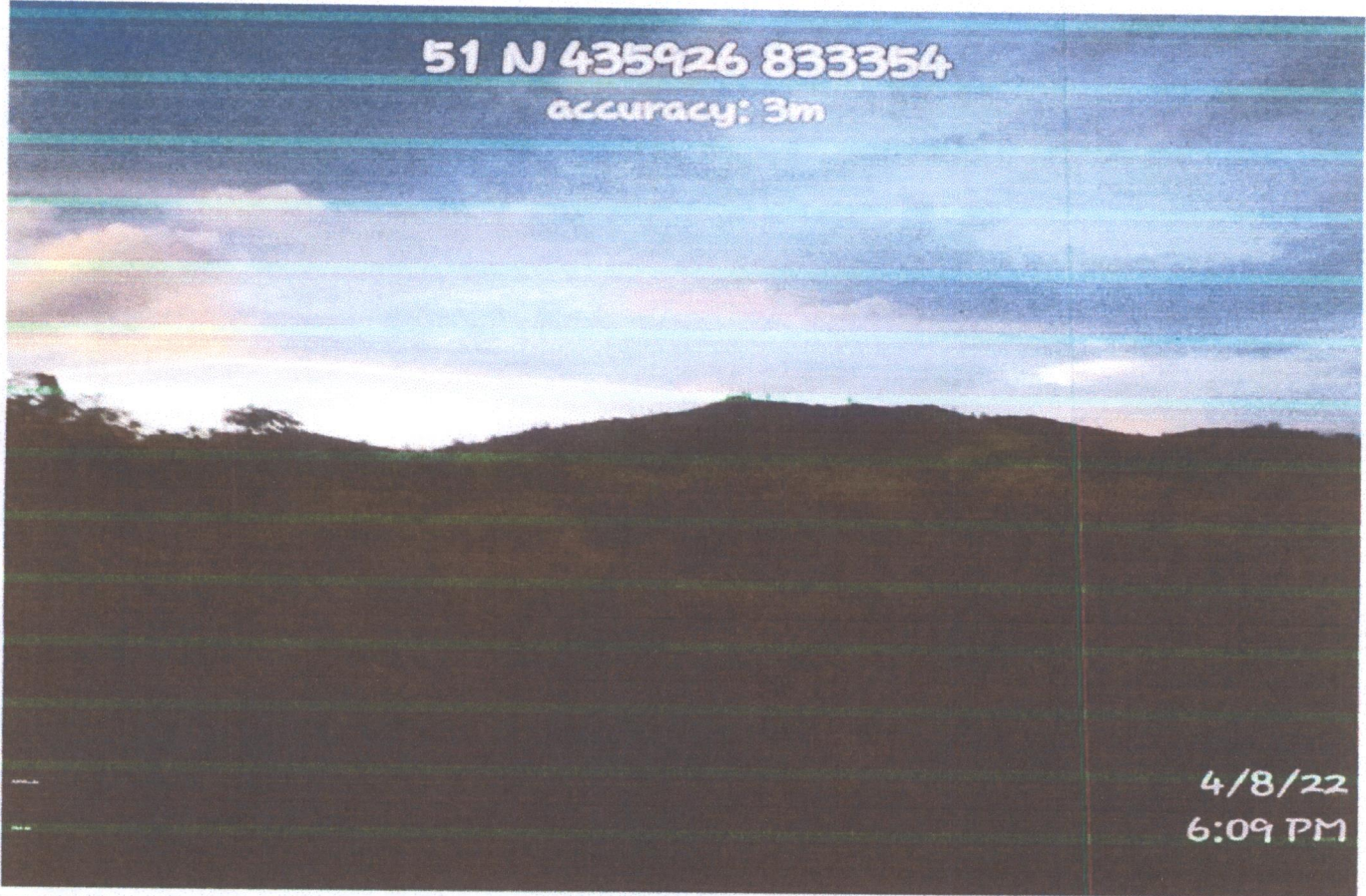
Pictures showing the bat exit count in Station 2 (Junction) located at Kabug Island, Laih, Siay, ZSP



Pictures showing the bat exit count in Station 3 (Back of Kabug) located at Kabug Island, Laih, Siay, ZSP



Pictures showing the bat exit count in Tigbucay, Tungawan, Zamboanga Sibugay





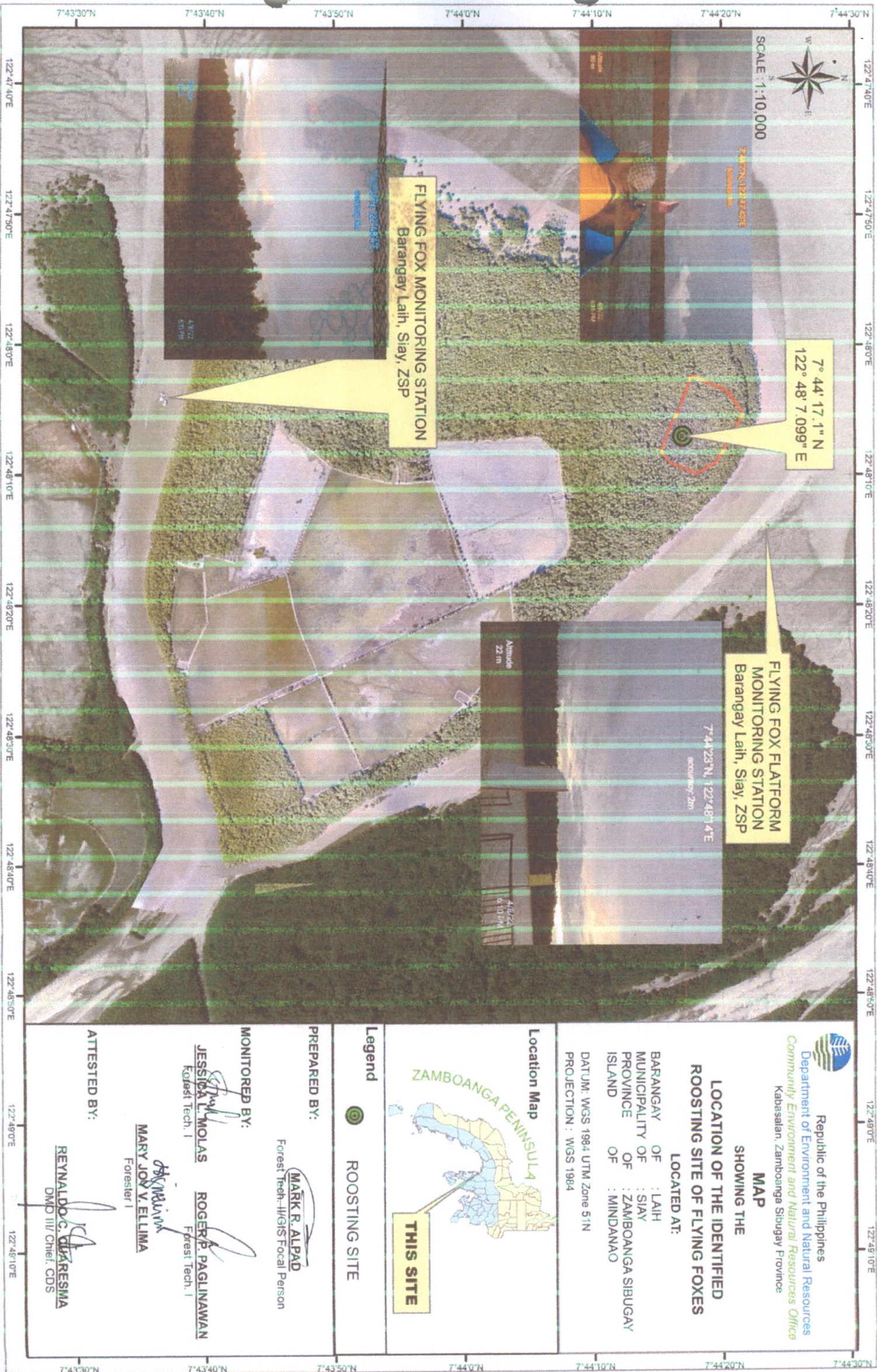
EXIT COUNT – COLONY SIZE DATA SHEET

Counter's name: CENRO KAB. TEAM Dennis N. Catalan Reynaldo C. Cuaresma Mary Joy V. Ellima Mark R. Alpad Jessica L. Molas Sergie S. Africa Roger P. Paglinawan Kzhia Mae F. Cabusas		PENRO -JPIL ZS. STAFF Michael F. Dela Cruz Lorina R. Callorina Georgina L. Fernandez Jmo O. Salvador Therence Gomera Shira Allelu Sismoan Kevin Flores Ashely Ann Tagalikod		Date of count: APRIL 08, 2022	Weather: FAIR	Location (general area, province/ municipality) Laih, Siay, Zamboanga Sibugay Within the CBFM Area of Gagmay'ng Mangingsida sa bato (GMB) The Roosting site Occupying an area of more or less 3.5 hectares		
Species in roost: <i>Pteropus vampyrus</i> <i>Acerodon jubatus</i>		Counter location (description, landmarks) and lat/long with direction of counting: Station. 1 Viewdeck -(7°44'23" N, 122°48'14" E) - 239,244 Station. 2 Junction - 1,813 Station. 3 Floating cottage - 7,054 Station. 4 Back portion of kabug Island- 56 Total: 248,167					Other counters counting the Same part of the sky as you: DENR- PENRO, Zamboanga Sibugay Staff	
Start time (first bat flying): 6:02 PM	Stop time: 6:28 PM	Reason for stopping (e.g. too dark, no more bats): No more Bats Exiting from the roosting site		Flow of bats at stopping point (e.g. light, medium, heavy): Light- Heavy		Number of bats counted in the last minute of the count period: 248,167		
Number on your counter at end of count:		Counting interval (s) (e.g. by 1, 10, 50): - 1-5-20-50		Total number of bats counted (please show math): 248,167 Bats (Flying foxes)				
Reliability of estimate (i.e., problems encountered):		Describe exit pattern (e.g. dispersed, in a tight column): Dispersed		Direction bats were flying (using compass bearing, describing landmarks, etc.): <i>Most of the bats were flying in the Northeast direction.</i>				

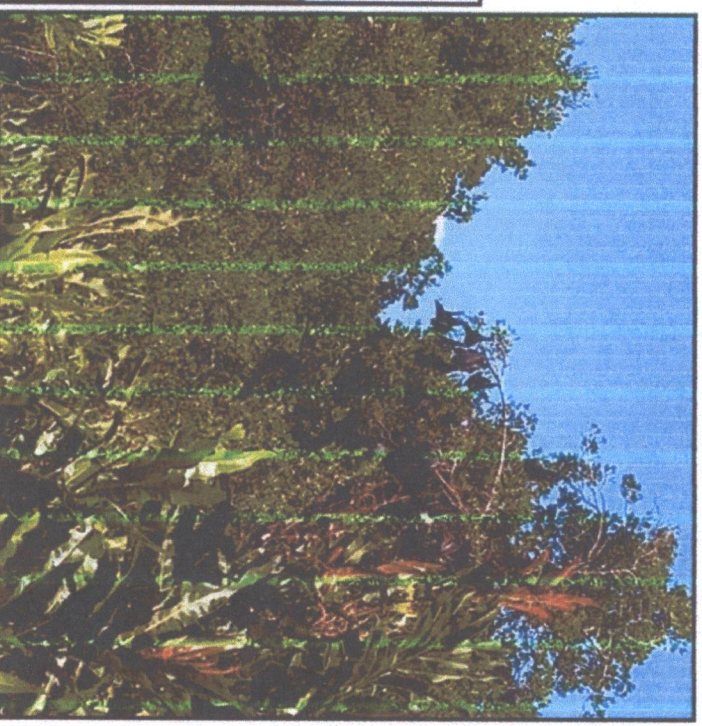
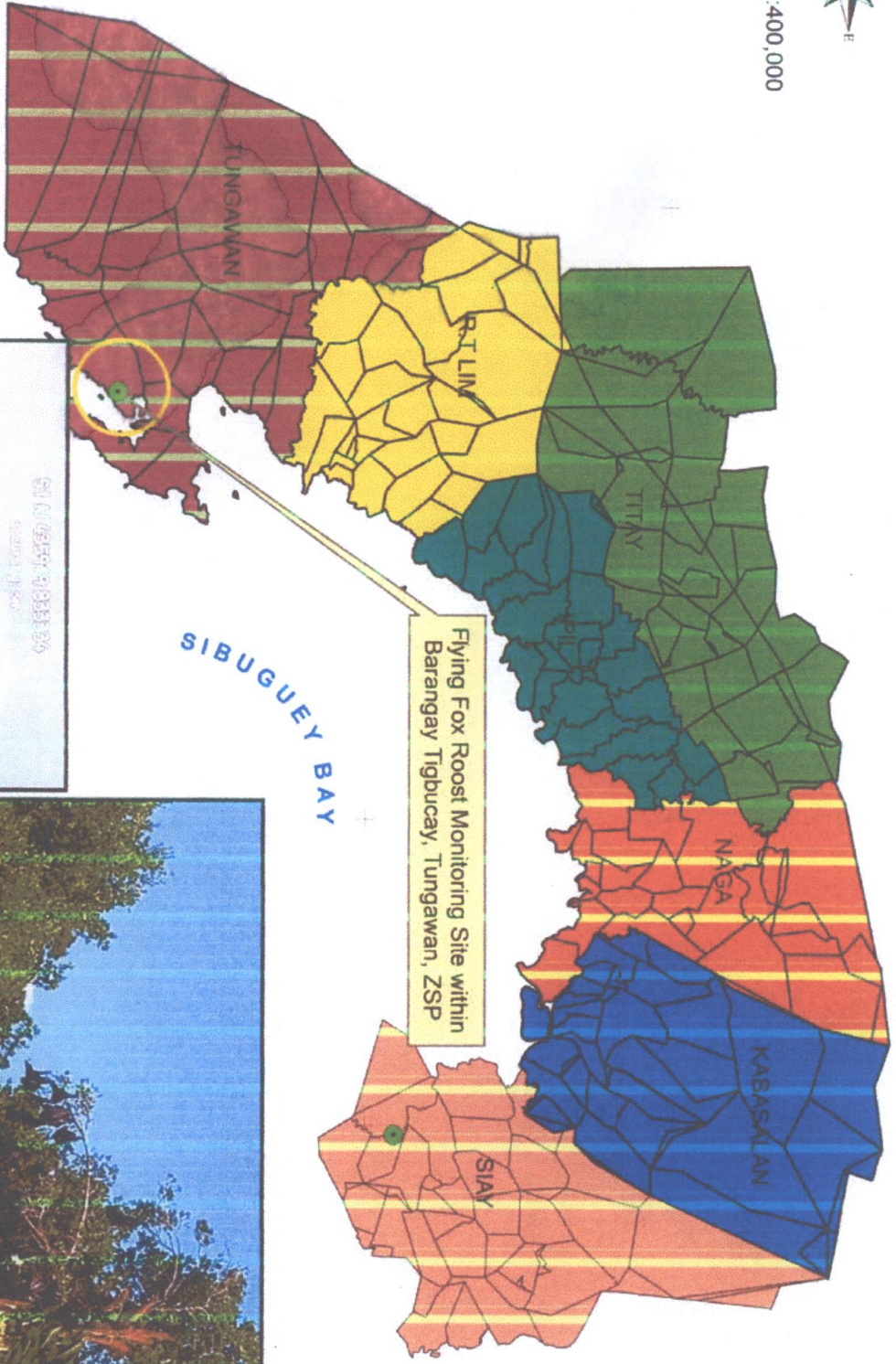



EXIT COUNT – COLONY SIZE DATA SHEET

Counter's name: CENRO KABASALAN TEAM TEODILFO L. ANGELES III RONILIO E. BLANCO PENRO, IPIL-ZAMBOANGA TEAM LAURENCE AIKEN MAKALISANG MENRO, TUNGAWAN TEAM BERNIE T. CAPUTOL RODEL P. CATUBAY KADAFI A. KARIL		Date of count: APRIL 08, 2022	Weather: FAIR	Location (general area, province/ municipality) Tigbucay, Tungawan, Zamboanga Sibugay	
Species in roost: <i>Pteropus vampyrus</i>	Counter location (description, landmarks) and lat/long with direction of counting: 51N439526 833354 Station 1- 1*105= 105, 10*89=890 Station 2- 14*1= 14 Station 3- 513*5= 2565, Station 4- 4166*5= 20,830 Total: 24,404		Other counters counting the Same part of the sky as you: <i>DENR- PENRO, Zamboanga Sibugay Staff</i> <i>MENRO, Tungawan staff</i>		
Start time (first bat flying): 6:11 PM	Stop time: 6:30 PM	Reason for stopping (e.g. too dark, no more bats): <i>No more Bats Exiting from the roosting site</i>		Flow of bats at stopping point (e.g. light, medium, heavy): <i>Light- Heavy</i>	Number of bats counted in the last minute of the count period: 24,404 <i>Pteropus vampyrus</i>
Number on your counter at end of count:		Counting interval (s) (e.g. by 1, 10, 50): 1 individual per second, 10 individual per second, 20 individual per second, 50 individual per second.		Total number of bats counted (please show math): 24,404 Bats (Flying foxes)	
Reliability of estimate (i.e., problems encountered):		Describe exit pattern (e.g. dispersed, in a tight column): <i>Dispersed</i>		Direction bats were flying (using compass bearing, describing landmarks, etc.): <i>South west, South east direction.</i>	



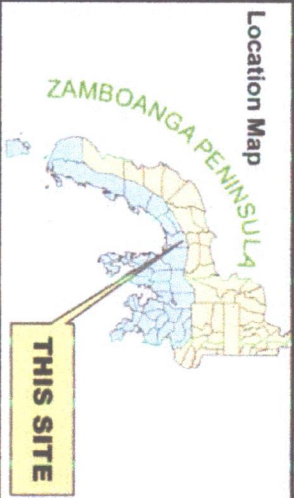
SCALE : 1:400,000




Republic of the Philippines
Department of Environment and Natural Resources
Community Environment and Natural Resources Office
Kabasalan, Zamboanga Sibugay Province

MAP
SHOWING THE
LOCATION OF THE IDENTIFIED
ROOSTING SITE OF FLYING FOXES

LOCATED AT:
BARANGAY OF : TIGBUCAY
MUNICIPALITY OF : TUNGAWAN
PROVINCE OF : ZAMBOANGA SIBUGAY
ISLAND OF : MINDANAO
DATUM: WGS 1984 UTM Zone 51N
PROJECTION : WGS 1984



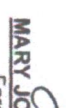


Legend

 PIL	 SIAY
 KASASLAN	 TITAY
 NAGA	 TUNGAWAN
 RT LIM	 Monitoring Site

PREPARED BY:

MARK R. ALPAD
Forest Tech. II/GIS Focal Person

MONITORED BY:

JESSICK L. MOLAS
Forest Tech. I

ROGER P. PAGLINAWAN
Forest Tech. I

MARY JOY BELLIMA
Forester I

ATTESTED BY:

REYNALDO C. OGRSMA
DMD III/ Chief, CDS