



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN
MIMAROPA REGION

Bgy. Sta. Monica, Puerto Princesa City, Palawan
E-mail: penropalawan@denr.gov.ph
Telfax No. (048) 433-5638 / (048) 433-5638



July 31, 2024

MEMORANDUM

FOR : The Regional Executive Director
MIMAROPA Region
Parañaque International Terminal Exchange (PTEX)
#1 Kennedy Road, Tambo, Parañaque City

THRU : The OIC, Assistant Regional Director for Technical Services

FROM : The Provincial Environment and
Natural Resources Officer

SUBJECT : **ACTIVITY REPORT ON THE MONITORING OF
AUTONOMOUS REEF MONITORING STRUCTURE (ARMS)
DEPLOYED AT SNAKE ISLAND-NCMCR AND
OBSERVATION OF CORAL REEFS WITHIN THE VICINITY
OF ARMS DEPLOYMENT AREA FOR THE MONTH OF JULY
2024**

Forwarded is the memorandum dated July 31, 2024 of the Chief, Conservation and Development Section of PENRO Palawan along with the report of SIMO personnel re the conducted above mentioned activity.

As per report, the monitoring was conducted on July 26, 2024 to check the condition of the ARMS unit deployed at 16-meters depth with 9.90933 N, 118.82993 E. The said activity was piloted by three (3) Snake Island Management office.

In addition, the team still noticed coral bleaching which falls under Category 1 (Low Bleaching) characterized with conspicuous bleached colonies seen occasionally covering about less than 15% of the surveyed area, as only patches of some corals were bleached.

This serves as the Means of Verification (MOV) of Snake Island NCMCR FY 2024 activities.

For information and record.




HELIZARDO B. CAYATOC

DENR-PALAWAN
PENRO-RECORDS
RELEASED
By: 
Date: 02 JUL 2024



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July 31, 2024

MEMORANDUM

FOR : The PENRO

THRU : TSD Chief

FROM : CDS Chief
in concurrent capacity as Snake Island Management Officer

SUBJECT : **ACTIVITY REPORT ON THE MONITORING OF AUTONOMOUS REEF MONITORING STRUCTURE (ARMS) DEPLOYED AT SNAKE ISLAND-NCMCR AND OBSERVATION OF CORAL REEFS WITHIN THE VICINITY OF ARMS DEPLOYMENT AREA FOR THE MONTH OF JULY 2024**

Respectfully submitted is the activity report of the Snake Island Management Office (SIMO) personnel regarding the above subject.

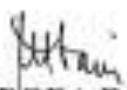
Please be informed that the monthly ARMS monitoring was conducted on July 26, 2024 to regularly check the condition of the ARMS unit since its redeployment on July 27, 2022. The SIMO personnel Krizia Meryl A. Ecube (Marine Biologist II) together with, John Carlo J. Talan and Kenneth Gel A. Jabelo (Research Assistant-SIMO), carried out this month's monitoring activity.

Be informed that the ARMS unit was spotted in the same deployment area with coordinates 9.90933 N, 118.82993 E with a depth of 16 meters at high tide, water visibility of 1-2 meters and temperature of 29°C.

In addition, the team still noticed coral bleaching since the first observation last May 29, 2024 which falls under the same classification: Category I (Low Bleaching) characterized with conspicuous bleached colonies seen occasionally covering about 15% of the surveyed area, as only patches of some corals were bleached.

This serves as Means of Verification (MOV) for Snake Island NCMCR CY 2024 activities.

For your information and record.


RHODORA B. UBANI
Supervising ECOMS
Chief, CDS/SIMO



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**ACTIVITY REPORT ON THE MONITORING OF AUTONOMOUS REEF
MONITORING STRUCTURE (ARMS) DEPLOYED AT SNAKE ISLAND-NCMCR
AND OBSERVATION OF CORAL REEFS WITHIN THE VICINITY OF ARMS
DEPLOYMENT AREA FOR THE MONTH OF JULY 2024**

Autonomous Reef Monitoring Structures (ARMS) are standardized 3D collectors of marine life. It is composed of stacks of plates that mimic the complex structure of the sea bottom that is hard to sample without destroying natural habitat.

ARMS act as biological weather stations. It is deployed for a period of time, then recovered by a team and taken apart to see what organisms have settled in the plates which would identify the characteristics of a particular region. This standard census allows researchers to compare one place to another or how one place changes over time, based on these ARMS communities.

Marine communities respond to different ocean conditions, with the aid of deploying ARMS, it can determine how or how management practices affect ocean health. For instance, ARMS can demonstrate the effectiveness of marine protected areas or the impact of ocean stressors like pollution or ocean acidification. Knowing how marine species will respond to different ocean states can help predict and plan actions for a healthier reef.

At Snake Island-NCMCR, one ARMS unit was deployed with exact location at 9.90933 N, 118.82993 E since July 27, 2022 and is regularly monitored monthly as per yearly Work and Financial Plan (WFP) of Snake Island Management Office (SIMO) to secure and maintain its placement under water.

As per the monitoring in the month of July, the ARMS unit is in stable condition placed exactly at the deployment location. However, with the low visibility during the dive, the team could not capture clear images.

Date of conduct: July 26, 2024

Water visibility: 1-2 meters

Weather condition: Cloudy/Windy

Water Temperature: 29°C



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PHOTO DOCUMENTATION



Dive team: Krizia Meryl A. Ecube (Marine Biologist II), Brian A. Anas (Data Manager) and Research Assistants, Keneth Gel A. Jabelo and John Carlo J. Talan



Securing ARMS placement and its surrounding

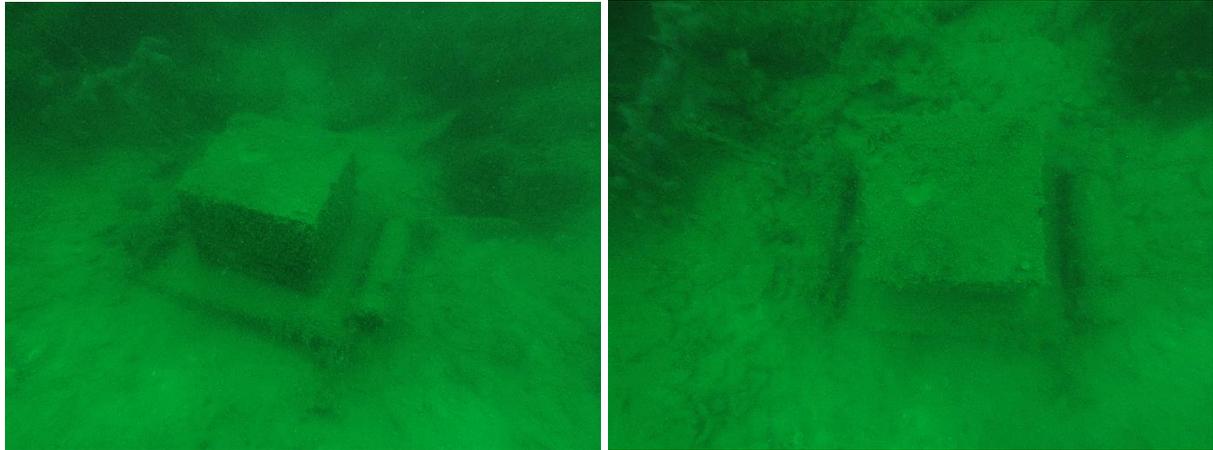


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ARMS unit deployed at the same exact position at 16-m depth (high tide) monitored last July 26, 2024.

Other observations:

Coral bleaching

Coral bleaching within the vicinity of the ARMS placement were still observed during ARMS monitoring last July 26, 2024 while diving, however, with the visibility during the dive at 1-2 meters, the SIMO staffs could not capture clear images underwater.

With the previous survey conducted last May 29, 2024 where coral bleaching falls under Category 1 (Low Bleaching) characterized with conspicuous bleached colonies seen occasionally and covering about 15% of the observed reef area based from the guidance to the coral bleaching announcement by US NOAA (April 15, 2024), this current survey was most likely the same as some patches of bleached corals only were observed.

Photos of some bleached corals near ARMS





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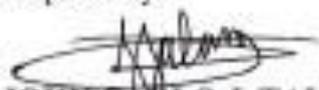
List of fish species observed:

- Sweetlips (*Plectorhinchus sp.*)
- Wrasse (*Labridae*)
- Damsel fish (*Pomacentridae*)
- Marine Angel fish (*Pomacanthidae*)
- Butterfly fish (*Chaetodontidae*)



Pennant coral fish (*Hentochus acuminatus*)

Prepared by:


JOHN CARLO J. TALAN
Research Assistant/SIMO


KRIZIA MERYL A. ECUBE
Marine Biologist II/SIMO