



June 3, 2022

**MEMORANDUM**

FOR : **The Regional Executive Director**  
DENR-MIMAROPA Region

THRU : **The Assistant Regional Director**  
for Technical Services

FROM : **The OIC, Provincial Environment and**  
**Natural Resources Officer**

SUBJECT : **REQUEST FOR GRATUITOUS PERMIT (GP) TO CONDUCT**  
**RESEARCH STUDY ENTITLED "TAXONOMY OF**  
**MACROSCOPIC FUNGI IN MARINDUQUE WILDLIFE**  
**SANCTUARY WITH REPORT ON THE MOLECULAR**  
**IDENTIFICATION OF CRYPTIC FUNGI AND HEAVY METAL**  
**ANALYSIS OF WILD EDIBLE FUNGI AND ITS SUBSTRATE".**

Respectfully forwarded is the attached Research Proposal of Ms. Arianne Grace M. Revilla, a Doctor of Philosophy in Biology student from the College of Science and Computer Studies – Graduate Studies (CSCSGS) of De La Salle University – Dasmariñas, Cavite which was duly endorsed by her Thesis adviser, Dr. Edwin R. Tadosa. This will be conducted within the Marinduque Wildlife Sanctuary (MWS) specifically located in the Municipalities of Gasan, Buenavista, and Torrijos, Marinduque.

Please be informed further that the field studies will involve the collection of fungi specimens inhabiting MWS using standardized collection and preservation techniques. These species will be preserved for proper identification and examination. Accordingly, the result of the study would complement the ongoing and continuous biodiversity assessment, conservation, and management of the protected area or MWS.

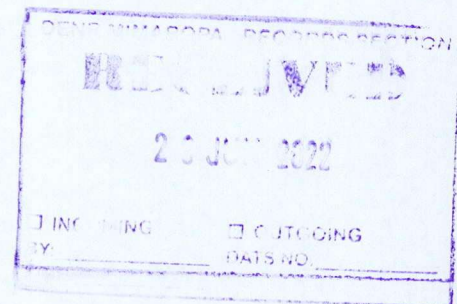
Likewise, attached is the proponent's proposal, Prior Informed Consent (PIC) issued by the concerned LGUs, and PAMB Resolution No. 2021-009 for further information and ready reference.

For your information and approval.

"For and in the absence of the PENR Officer"

  
**CYNTHIA U. LOZANO**  
Chief, Technical Services Division  
In-Charge, Office of the PENR Officer





**REQUEST FOR GRATUITIOUS PERMIT (GP)  
TO CONDUCT RESEARCH STUDY ENTITLED  
“TAXONOMY OF MACROSCOPIC FUNGI IN  
MARINDUQUE WILDLIFE SANCTUARY WITH  
REPORT ON THE MOLECULAR  
IDENTIFICATION OF CRYPTIC FUNGI AND  
HEAVY METAL ANALYSIS OF WILD EDIBLE  
FUNGI AND ITS SUBSTRATE”.**





De La Salle University  
D A S M A R I Ñ A S

College of Science and Computer Studies  
Graduate Studies

(+6346) 4811938; (+632) 8447832 local 3073  
www.dasma.dlsu.edu.ph



11 May 2022

**LORMELYN E. CLAUDIO**

Regional Executive Director  
DENR-MIMAROPA Region

Thru: **IMELDA M. DIAZ**

OIC – PENRO Marinduque  
Capitol Compound, Brgy. Bangbangalon,  
Boac, Marinduque

Dear Director Claudio,

I am ARIANNE GRACE M. REVILLA, resident of Brgy. Malusak, Boac, Marinduque, and now enrolled at the College of Science and Computer Studies – Graduate Studies (CSCSGS) of the De La Salle University – Dasmariñas, Cavite taking Doctor of Philosophy in Biology under the tutelage of Dr. Edwin R. Tadosa. As part of my course requirement to finish my degree is a dissertation and my proposed study is entitled ‘Taxonomy of Macroscopic Fungi in Marinduque Wildlife Sanctuary (MWS) with report on the Molecular Identification of Cryptic Fungi and Heavy Metal Analysis of Wild Edible Fungi’.

In this regard, I would like to secure a Gratuitous Permit (GP) to conduct a study in your area of jurisdiction, the MWS Protected Area. This study will be conducted as soon as the GP is granted. The study includes the collection of a limited number of specimens using standardized collection and preservation techniques. Rest assured that I will observe and comply with the rules, regulations, and proper protocol set by the Protected Area Management Board (PAMB) office.

The outcomes of the study may be utilized by relevant government agencies and conservation NGOs to enhance the current protection and conservation efforts of MIMAROPA’s Protected Area. I will also provide you a copy of the results of this study, which will include a detailed report of findings with photographs of some species and habitat. I will also share with the DENR all relevant biodiversity information that will arise from this research.

Attached is a copy of the Research Proposal for your reference and guidance.

Thank you and hoping a favorable response to this request.

Truly yours,

**ARIANNE GRACE M. REVILLA**  
PhD Biology student





De La Salle University  
D A S M A R I Ñ A S

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13 May 2022

**PENRO IMELDA M. DIAZ**

OIC – Provincial Env't. and Natural Resources Office  
Capitol Compound, Brgy. Bangbangalon,  
Boac, Marinduque

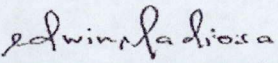
Thru: **MR. EMETERIO M. RECTO**  
Protected Area Superintendent  
Marinduque Wildlife Sanctuary

Dear PENRO DIAZ,

May I respectfully recommend **MS. ARIANNE GRACE M. REVILLA**, my graduate thesis advisee, seeks your favorable help and assistance in conducting her study entitled “**Taxonomy of Macroscopic Fungi in Marinduque Wildlife Sanctuary (MWS) with a report on the Molecular Identification of Cryptic Fungi and Heavy Metal Analysis of Wild Edible Fungi**”. She will particularly carry out her research in the Gasan, Buenavista, and Torrijos areas within MWS. The possible outcomes of this study may be utilized by relevant government agencies such as DENR, academe, and conservation NGOs to know the baseline data of this particular organism. Knowing the presence of fungi may enhance the protection, management, and conservation efforts of MIMAROPA's Protected Area. The study's findings with photographs of some species and habitats will be forwarded to your good office once the survey is done.

Thank you, and hoping for a favorable response to this request.

Truly yours,

  
**EDWIN R. TADIOSA, Ph.D**  
Professor, De La Salle University- Dasmariñas





De La Salle University - Dasmariñas  
**COLLEGE OF SCIENCE AND COMPUTER STUDIES**  
**GRADUATE STUDIES**



## **TAXONOMY OF MACROSCOPIC FUNGI IN MARINDUQUE WILDLIFE SANCTUARY WITH REPORT ON THE MOLECULAR IDENTIFICATION OF CRYPTIC FUNGI AND HEAVY METAL ANALYSIS OF WILD EDIBLE FUNGI AND ITS SUBSTRATE**

by

Arianne Grace M. Revilla and Edwin R. Tadosa

### **Introduction**

Fungi are essential organisms that play an important role in maintaining the balance of Earth's processes (Pouliot 2016). These organisms are source of food, medicine, biocontrol agents, chemical producers of bioactive compounds used in the pharmaceutical, and many other industries (Duarte et al. 2006). There is an estimated number of 2.2 to 3.8 million species of fungi all over the world (Hawksworth and Lucking 2017), wherein 7 % is known, and 93% are still undiscovered (State of the World's Fungi, 2018). Since fungi are cryptic and have a shorter life span, they are poorly studied and undocumented and is overlooked by many existing environment conservation laws.

### **Statement of the Problem**

Isolation of each island in the Philippines has maintained the endemicity of organisms in varying ecosystems in the country (de la Cruz 2009). However, the country has scant progress of research on fungal studies (de la Cruz 2013). There is an average of 26 species of fungi discovery per year based on works of Teodoro (1937) and Quimio (2002), as mentioned in the review made by de La Cruz (2009). To establish a strong core of mycology in the country, baseline studies about the biodiversity of fungi should be conducted (de La Cruz 2009).

Several studies were conducted regarding the biodiversity of fungal species in the country (Quimio and Capilit 1983, Tadosa et al. 2011, Tadosa and Briones 2013, and De Leon et al. 2013), however, still, many areas are yet to explore. To continuously document these organisms, more studies should be made (Arenas et al. 2018) through exploring of untapped places to broaden and understand country's biodiversity as a whole. Furthermore, the inadequacy of the number of studies of macrofungi in the country also equates to lack of molecular studies among these organisms. An increase in the molecular identification of fungi, escalate the rate of discovery of novel species of fungi (Hibbett et al. 2011). Exploring new species of fungi may open new potentials of these organisms in different fields of agricultural, industrial, and pharmaceutical applications (Raja et al. 2017). Human activities such as discharge of industries wastes, mining, urbanization, agriculture (Ibrahim et al. 2016; Kariuki et al. 2017; Bano et al. 2018) contribute to the increase of toxic heavy metals in the ecosystem (Zhen et al. 2007). Fungi are also known to bioabsorb heavy metals (Oladipo et al. 2017). The pollution of the environment poses danger to humans as some fungal species are edible and eaten by local folks. Studies regarding the concentration of heavy metal in fungi are scarce in the Philippines.

Marinduque the heart of the Philippines is a remote island lying between Tayabas Bay to the North and Sibuyan Sea to the South. Last 2004, Marinduque Wildlife Sanctuary, a two parcel of land in the province of Marinduque, was enacted as a protected area under the Republic Act 7586, known as the "National Integrated Protected Areas System Act of 1992". This land comprises five out of the six municipalities of Marinduque namely Boac, Buenavista, Gasan, Sta., Cruz, and Torrijos excluding the municipality of Mogpog. The sanctuary is known to harbours variety of species of plants and animals. It is the best-known part of the island to document these fungi as this place receives minimal impact from human activities. This research will be the very first documentation of macrofungi, and heavy metal analysis of edible fungi in the island of Marinduque. The results of this study will be



valuable for documenting, monitoring, and conservation of the fungal species in the province. Data will also contribute to the overall knowledge about the richness of fungal diversity in the Philippines.

### **Objectives of the Study**

This study generally aims to determine the taxonomy of macroscopic fungi in Marinduque's Wildlife Sanctuary with a report on the molecular identification of cryptic fungi and heavy metal analysis of selected wild edible fungal species and its substrate.

1. To identify the collected macroscopic fungi at Marinduque Wildlife Sanctuary (MWS) based on morphological characteristics and anatomical features;
2. To determine the taxonomic classification of all collected macrofungi at MWS by including taxonomic keys, descriptions and photographs;
3. To undergo molecular identification of some cryptic fungi collected using Internal Transcribed Spacer (ITS) as universal primer; and
4. To analyze the presence of copper concentrations of selected wild edible fungi and its substrate in different ecosystems e.g. primary forest, secondary forest, grassland, agricultural and residential areas and its bioaccumulation factor.

### **Methodology**

#### *Taxonomic Study of Macrofungi in Marinduque Wildlife Sanctuary*

This study will utilize a descriptive research design. The taxonomic inventory of the collected macrofungi will be made from the extensive systematic collection of these organisms in the Marinduque Wildlife Sanctuary. Macrofungal body will be photographed in their habitat showing all the aspects of the fruiting body with proper tags and scale. Morphological characteristics of macrofungi will be thoroughly examined based on the protocol used by de la Cruz (2015) for proper identification. Morphological characteristics that will be noted are substrate type, description of pileus (diameter, shape, apex, surface, color, peeling, and margin), description of lamellae (gills, attachment, arrangement) and description of stipe (color, height, width, shape, attachment to cap, surface, annulus, attachment to substrate and volva). Moreover, a taxonomic listing will be made for each of the species collected from MWS. All samples will be brought to De La Salle University- Dasmariñas laboratory.

#### *Molecular Study on the Cryptic Macrofungi found at Marinduque Wildlife Sanctuary*

This study will utilize a descriptive research design. Cryptic macrofungi found in the Marinduque Wildlife Sanctuary will be identified using a molecular method, DNA barcoding. DNA (Deoxyribonucleic Acid) extraction, PCR (Polymerase Chain Reactor) amplification, and DNA sequencing will be used to confirm the identity of the macrofungi. The maximum likelihood tree will be generated out of the specimens subjected to the DNA Barcoding using software MEGA 2.5.

#### *Heavy Metal Analysis of Selected Wild Edible Macrofungi in Marinduque Wildlife Sanctuary*

This study will utilize a quantitative research design for data collection and analysis. Copper concentration in wild edible macrofungi and its substrate (rotten wood, branches, trunk, etc) will be determined using the procedure of Radulescu et al. (2010). On the other hand, for soil substrate, USEPA 3050B method will be applied. Copper concentration data obtained from the wild edible macrofungi and its substrates will be compared using one-way ANOVA among different ecosystems (primary forest, secondary forest, grassland, agricultural and residential areas)



where the samples will be gathered. In addition, linear regression will be used to determine the relationship of metal concentration in the wild edible macrofungi and that of the substrate (soil). To determine the ability of the macrofungi to absorb and store copper from its substrate, Bioaccumulation Factor (BAF) will be computed. Furthermore, concentration of copper in the wild macrofungal species will be compared to the WHO safe limits and FAO/WHO tolerable monthly intake.

## References

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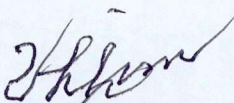


## PRIOR INFORMED CONSENT CERTIFICATE

This is to certify that the undersigned has reviewed the research proposal of ARIANNE GRACE M. REVILLA of De La Salle University-Dasmariñas and understood the implications of the research proposal of the study area and its vicinities. Further I certify that I have consulted with my respective constituents and that they interpose no objection whatsoever to the research study.

This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Tiguion, Gasan, Province of Marinduque.

Done this 17<sup>th</sup> day of May 2022 at Gasan, Marinduque

  
HON. VICTORIA L. LIM  
Municipal Mayor

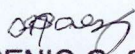


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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Antipolo, Gasan, Province of Marinduque.

Done this 17<sup>th</sup> day of May 2022 at Gasan, Marinduque

  
HON. ARSENIO G. SAEZ

Barangay Captain



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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Tabionan, Gasan, Province of Marinduque.

Done this 17<sup>th</sup> day of May 2022 at Gasan, Marinduque

*by Kgd Joselito C Montoya*  
HON. RIZAL L. BASCO

Barangay Captain



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Done this 17<sup>th</sup> day of May 2022 at Gasan, Marinduque

by *Medina S. Sapungan*  
HON. JOSE O. SAPUNGAN

Barangay Captain

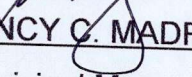


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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Sihi, Buenavista, Province of Marinduque.

Done this 17<sup>th</sup> day of May 2022 at Buenavista, Marinduque

  
HON. NANCY C. MADRIGAL  
Municipal Mayor

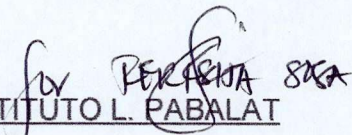


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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Malbog, Buenavista, Province of Marinduque.

Done this 14<sup>th</sup> day of May 2022 at Buenavista, Marinduque

  
HON. RESTITUTO L. PABALAT

Barangay Captain

5/14/22

Received

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MSY SA.

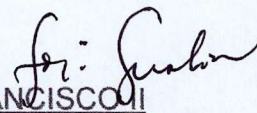


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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy Bagtingon, Buenavista, Province of Marinduque.

Done this 14<sup>th</sup> day of May 2022 at Buenavista, Marinduque

  
HON. MARIO C. FRANCISCO

Barangay Captain



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Done this 17<sup>th</sup> day of May 2022 at Buenavista, Marinduque



BY: KOD. CHRISTOPHER R. MATAAC  
HON. DANTE M. MARINDUQUE

Barangay Captain

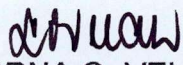


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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Nangka, Torrijos, Province of Marinduque.

Done this 17<sup>th</sup> day of May 2022 at Torrijos, Marinduque

  
HON. LORNA Q. VELASCO  
Municipal Mayor



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This PIC certificate is issued to support the application of Ms. Arianne Grace M. Revilla for her scientific research in Marinduque Wildlife Sanctuary, Brgy. Malibago, Torrijos, Province of Marinduque.

Done this 14th day of May 2022 at Torrijos, Marinduque

for:  
HON. SABINO R. ROJO

Barangay Captain

  
RAUL A. REGIS  
NGAWAO



## PRIOR INFORMED CONSENT CERTIFICATE

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Done this 17<sup>th</sup> day of May 2022 at Torrijos, Marinduque



HON. JESSER PERALTA

Barangay Captain



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Done this 17<sup>th</sup> day of May 2022 at Torrijos, Marinduque

By: *Reben G. Fidelino*  
HON. REBEN G. FIDELINO

Barangay Captain





**MEMORANDUM**

**FOR :** UNDERSECRETARY EDILBERTO D. LEONARDO  
Undersecretary for Protected Areas and Special Concerns

**ATTENTION:** DIRECTOR NATIVIDAD Y. BERNARDINO  
Director, Biodiversity Management Bureau

**FROM :** THE OIC-REGIONAL EXECUTIVE DIRECTOR

**SUBJECT :** RESOLUTION AND MINUTES OF THE 4<sup>th</sup> PAMB EN BANC  
MEETING OF MARINDUQUE WILDLIFE SANCTUARY (MWS)  
FOR CY 2021

**DATE :** FEB 24 2022

Respectfully submitted is a copy of the Memorandum dated December 13, 2021 of the OIC, PENR Officer of Marinduque relative to the above subject. The 4<sup>th</sup> PAMB en bank meeting of MWS was conducted on November 25, 2021 at Freedom Eco Adventure Park, Brgy. Bunganay, Boac, Marinduque.

On the said PAMB meeting, six (6) resolutions were ratified by the Board, to wit:

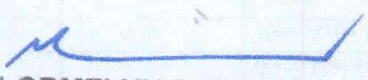
Resolutions No.	Title
2021-009 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) NA BIGYAN NG PAHINTULOT O CLEARANCE UPANG MAISAGAWA NI MS. ARIANNE GRACE M. REVILLA NG DE LA SALLE UNIVERSITY (DLSU)-DASMARIÑAS COLLEGE OF SCIENCE AND COMPUTER STUDIES AND KANYANG PANUKALANG RESEARCH STUDY NA MAY TITULONG "TAXONOMY OF MACROSCOPIC FUNGI IN MARINDUQUE WILDLIFE SANCTUARY WITH REPORT ON THE MOLECULAR IDENTIFICATION OF CRYPTIC FUNGI AND HEAVY METAL ANALYSIS OF WILD EDIBLE MACROFUNGI AND ITS SUBSTRATE" NA ISASAGAWA SA MGA PILING LUGAR KUNG SAAN NAITATAG AND BIODIVERSITY MONITORING SYSTEM (BMS) TRANSECT LINE NA MATATAGPUAN SA BARANGAY MAKULAPNIT, SANTA CRUZ; MALBOG AT BAGTINGON, BUENAVISTA; TABIONAN, GASAN, MARINDUQUE
2021-010 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) TUNGKOL SA PAGHINGI NG PAHINTULOT SA DENR-REGIONAL OFFICE AT BIODIVERSITY MANAGEMENT BUREAU (BMB) NA MAISAGAWA NG PROTECTED AREA MANAGEMENT OFFICE (PAMO) AT PAMB ANG REGULAR NA BIODIVERSITY MANAGEMENT SYSTEM (BMS) SA IBANG TRANSECT LINE NA NAITATAG SA LOOBAN NG MARINDUQUE WILDLIFE SANCTUARY (MWS) NA MATATAGPUAN SA BARANGAY MAKULAPNIT, SANTA CRUZ; MALBOG AT BAGTINGON, BUENAVISTA, MARINDUQUE



2021-011 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) UPANG MAKAPAGLAAN AND PROTECTED AREA MANAGEMENT OFFICE (PAMO) SA PAMAMAGITAN NI PASU EMETERIO M. RECTO NG PONDO UPANG MAGAMIT BILANG PAMASAHE NG MGA KASAPI NG PAMB NA REGULAR NA DUMADALO NG PAGPUPULONG
2021-012 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) UPANG I-AFFIRM O PAGTIBAYIN NG PROTECTED AREA MANAGEMENT BOARD ANG NAGING RESULTA NG ISINAGAWANG MANAGEMENT EFFECTIVENESS ASSESSMENT (MEA) NG MARINDUQUE WILDLIFE SANCTUARY (MWS) PARA SA TAONG 2021
2021-013 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) NA BIGYAN NG PAHINTULOT O CLEARANCE UPANG MAISAGAWA NI MS. ANA FAITH M. SENA NG CAVITE STATE UNIVERSITY (CaVSU) ANG KANYANG PANUKALANG RESEARCH STUDY NA MAY TITULONG "THE ECONOMICS OF PILI INDUSTRY IN MARINDUQUE" NA ISASAGAWA SA 23 BARANGAYS NA NASASAKUPAN NG MARINDUQUE WILDLIFE SANCTUARY (MWS)
2021-014 dated Nov. 25, 2021	RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) SA PAGBIBIGAY NG PAHINTULOT O CLEARANCE NA MAISAGAWA NG GREGORIO INNOVATIONS FOR DEVELOPMENT SOLUTIONS, INC. (GRIDS, INC) AND KANILANG PAG-AARAL PARA SA PROYEKTONG SMALL RESERVOIR IRRIGATION PROJECT (SRIP) SA BARANGAY BAGTINGON, BUENAVISTA, MARINDUQUE NG NATIONAL IRRIGATION ADMINISTRATION (NIA) NA SAKLAW NG PINANGANGALAGAANG-POOK O MARINDUQUE WILDLIFE SANCTUARY (MWS)

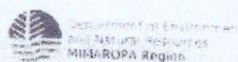
Attached are the Minutes of the 4<sup>th</sup> PAMB En Banc Meeting for CY 2021 and Resolution Nos. 2021-009, 010, 011, 012, 013, and 014 for your ready reference.

For your information and record.

  
LORMELYN E. CLAUDIO, CESO IV

CC: Undersecretary Rodolfo C. Garcia  
DENR Chief of Staff

Atty. Juan Miguel T. Cuna, CESO I  
Undersecretary for Field Operations and Environment



Doc ID: 77901

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P-2022-77901

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Email: mimaroparegion@denr.gov.ph



**HALAW SA KATITIKAN NG IKAAPAT AT HULING REGULAR NA PAGPUPULONG NG PROTECTED AREA MANAGEMENT BOARD (PAMB) EN BANC NG MARINDUQUE WILDLIFE SANCTUARY (MWS) NA GINANAP NOONG IKA-25 NG NOBYEMBRE, 2021 SA FREEDOM ECO ADVENTURE PARK BARANGAY BUNGANAY, BOAC, MARINDUQUE**

**PANGALAN**

**POSISYON/AHENSYA/BARANGAY**

**MGA DUMALO:**

- |   |   |
|---|---|
| 1. RED Ma. Lourdes G. Ferrer, <i>CESO III</i> | RED-DENR MIMAROPA/PAMB Chairperson ( <i>via zoom</i> )  |
| 2. Engr. Ranel S. Castillo                    | MPDC, LGU Buenavista, Marinduque                        |
| 3. Kgg. Enrique P. Landig                     | Punong Barangay, Balagasan, Boac                        |
| 4. Kgg. Gerry M. Malubag                      | Punong Barangay, Bayuti, Boac                           |
| 5. Kgg. Mark Anthony L. Lingon                | Punong Barangay, Binunga, Boac                          |
| 6. Kgg. Rolando P. Sapallo                    | Punong Barangay, Duyay, Boac                            |
| 7. Kgg. Reynaldo P. Lingon                    | Punong Barangay, Hinapulan, Boac                        |
| 8. Kgg. Benjamin P. Larga                     | Punong Barangay, Tugos, Boac                            |
| 9. Kgg. Lorna M. Jimena                       | Punong Barangay, Tumagabok, Boac                        |
| 10. Kgg. Dante M. Marinduque                  | Punong Barangay, Sihi, Buenavista                       |
| 11. Kgg. Sabino R. Rojo                       | Punong Barangay, Malibago, Torrijos                     |
| 12. Kgg. Jessie R. Peralta                    | Punong Barangay, Nangka, Torrijos                       |
| 13. Kgg. Elizabeth E. Manggol                 | Secretariat Head, MACEC ( <i>Presiding Officer</i> )    |
| 14. Kgg. Johnny C. Francisco                  | Barangay Kagawad, Bagtingon, Buenavista ( <i>Rep.</i> ) |
| 15. Kgg. Ronald S. Sapungan                   | Barangay Kagawad, Antipolo, Gasan ( <i>Rep.</i> )       |
| 16. Kgg. Edsel M. Basco                       | Barangay Kagawad, Tabionan, Gasan ( <i>Rep.</i> )       |
| 17. G. Junmuel P. Regio                       | Statistician I, MPDC-LGU Santa Cruz                     |
| 18. PMAJ Elmer L. Manalo                      | C, PCADU, Marinduque PPO ( <i>Representative</i> )      |
| 19. Dr. Doreen R. Mascareñas, Ph. D.          | Director, Extension Services of MSC ( <i>via zoom</i> ) |
| 20. G. Dante L. De Luna                       | Economist II, PGDH-PG ENRO ( <i>Rep. of PGM</i> )       |
| 21. G. Joven M. Lilles                        | SEMS, Provincial Tourism Office (PTO) Marinduque        |
| 22. Bb. Rosemarie A. Gutierrez                | Admin. Officer II, MPDO-LGU Torrijos ( <i>Rep.</i> )    |

**MGA HINDI DUMALO:**

- |                                    |   |
|------------------------------------|---|
| 1. Cong. Lord Allan Jay Q. Velasco | Speaker, House of the Representatives     |
| 2. Kgg. Armi DC. Carrion           | Congressman, Lone District of Marinduque  |
| 3. Kgg. Victoria L. Lim            | Punong Bayan, Mun. of Boac, Marinduque    |
| 4. Kgg. Crisostomo N. Monterey     | Punong Bayan, Mun. of Gasan, Marinduque   |
| 5. Kgg. Alex N. Montiano           | Punong Barangay, Boi, Boac                |
| 6. Kgg. Alejandro P. Opis          | Punong Barangay, Canat, Boac              |
| 7. Kgg. Restituto L. Pabalat       | Punong Barangay, Tambunan, Boac           |
| 8. Kgg. Jose O. Sapungan           | Punong Barangay, Malbog, Buenavista       |
| 9. Kgg. Delfin R. Fellizar         | Punong Barangay, Tiguion, Gasan           |
| 10. Kgg. Aristeo R. Rodil          | Punong Barangay, Devilla, Santa Cruz      |
| 11. Kgg. Teodoro R. Ramos          | Punong Barangay, Makulapnit, Santa Cruz   |
| 12. Kgg. Bernardo P. Pastoral      | Punong Barangay, Masalukot, Santa Cruz    |
| 13. Kgg. Reden G. Fidelino         | Punong Barangay, Tambangan, Santa Cruz    |
| 14. PD Bernardo T. Caringal        | Punong Barangay, Sibuyao, Torrijos        |
| 15. G. Rolinio S. Sajul            | Provincial Director, DOST Marinduque      |
|                                    | Chairman, Malbog Farmers Assoc. (CBFM-PO) |



## RESOLUSYON BILANG 2021-009

**RESOLUSYON UPANG PAGTIBAYIN ANG KAPASIYAHAN NG KAPULUNGAN (PAMB) NA BIGYAN NG PAHINTULOT O CLEARANCE UPANG MAISAGAWA NI MS. ARIANNE GRACE REVILLA NG DE LA SALLE UNIVERSITY (DLSU)-DASMARIÑAS COLLEGE OF SCIENCE AND COMPUTER STUDIES ANG KANYANG PANUKALANG RESEARCH STUDY NA MAY TITULONG "TAXONOMY OF MACROSCOPIC FUNGI IN MARINDUQUE WILDLIFE SANCTUARY WITH REPORT ON THE MOLECULAR IDENTIFICATION OF CRYPTIC FUNGI AND HEAVY METAL ANALYSIS OF WILD EDIBLE MACROFUNGI AND ITS SUBSTRATE" NA ISASAGAWA SA MGA PILING LUGAR KUNG SAAN NAITATAG ANG BIODIVERISTY MONITORING SYSTEM (BMS) TRANSECT LINE NA MATATAGPUAN SA BARANGAY MAKULAPNIT, SANTA CRUZ; MALBOG AT BAGTINGON, BUENAVISTA; TABIONAN, GASAN, MARINDUQUE;**

**SAPAGKAT**, ang Marinduque Wildlife Sanctuary (MWS) na may dalawang (2) parsela at kabuuang sukat na humigit kumulang 9,759 ektarya ay naideklara bilang isang pinangangalagaang pook (*protected area*) ayon sa Republic Act 7586 o ang *National Integrated Protected Area System Act (NIPAS Act of 1992)* na inamyendahan ng bagong batas na Republic Act 11038 o ang *Expanded National Integrated Protected Area System (ENIPAS Act of 2018)*;

**SAPAGKAT**, ang pangunahing layunin ng *Protected Area Management Board (PAMB)* ay mapangalagaan ang samu't-saring buhay na matatagpuan sa nasasakupan ng *Marinduque Wildlife Sanctuary (MWS)* sa pamamagitan ng likas-kayang pag-unlad tungo sa pangmatagalang kapakinabangan;

**SAPAGKAT**, ang lahat ng programang isasagawa sa looban ng nasabing pinangangalagaang pook (*Protected Area*) maging ito man ay pagsasaliksik (*research*) o pagpapaunlad (*development*) gaya ng pagtatanim ng mga puno ay dapat mayroong kaukulang pagsisiyasat bago bigyan ng kaukulang pagsang-ayon (*clearance*) ng Kapulungan (PAMB) para masiguro ang angkop at maayos ang pagsasagawa nito;

**SAPAGKAT**, ang isang mag-aaral buhat sa De La Salle University (DLSU)- Dasmariñas College of Science and Computer Studies ay may kahilingan sa PAMB na maisagawa ang kanyang pag-aaral na may titulong "*Taxonomy of Macroscopic Fungi in Marinduque Wildlife Sanctuary with Report on the Molecular Identification of Cryptic Fungi and Heavy Metal Analysis of Wild Edible Macrofungi and its Substrate*" at mangolekta ng species ng iba't-ibang species ng Macrofungi sa mga piling lugar kung saan naitatag ang *Biodiveristy Monitoring System (BMS) transect line* na matatagpuan sa Barangay Makulapnit, Santa Cruz; Malbog at Bagtingon, Buenavista; Tabionan, Gasan, Marinduque;

**SAPAGKAT**, matapos ang kaukulang pagsisiyasat ng kapulungan (PAMB) sa *proposal* at paliwanag ay napag-alaman na ang gagawing pag-aaral ni Ms. Arianne Grace M. Revilla ay napapanahon sapagkat sa kasalukuyan ang *protected area* ay nagpo-profiling kung kaya kailangan talaga ang katulad nitong datos.

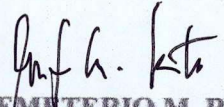

**SAPAGKAT**, ang gagawing pag-aaral ay makatutulong sa *documentation at identification* ng *macrofungal species* na matatagpuan sa looban ng pinangangalagaang-pook o Marinduque Wildlife Sanctuary (MWS), makatuklas ng *novel species*, at magsilbing *baseline* sa *field of mycology*.



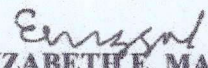
**DAHIL DITO**, malugod na iminungkahi ni Kgg. Lorna M. Jimena na bigyan ng kapahintulutan o *clearance* na maisagawa ang panukalang pag-aaral sa mga piling lugar na nasasakupan ng *Marinduque Wildlife Sanctuary* at magkaroon ng *endorsement* na kanyang kakailanganin para sa aplikasyon ng *Gratuitous Permit (GP)* bago kumuha o mangolekta ng mga *samples* sa loob ng *protected area* na pinangalawahan ni Dr. Doreen R. Mascareñas.

Pinagtibay ngayong ika-25 ng Nobyembre, 2021 sa Freedom Eco Adventure Park, Barangay Bunganay, Boac, Marinduque.

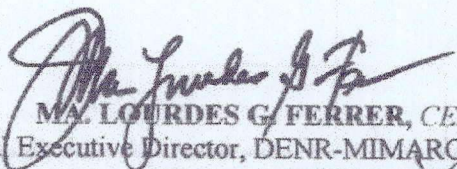
Inihanda:

  
**EMETERIO M. RECTO**  
Protected Area Superintendent  
Kalihim ng PAMB 

Patotoo:

  
**ELIZABETH E. MANGGOL**  
Secretariat Head, MACEC  
(Pansamantalang Tagapangulo)

Pinagtibay:

  
**MA LOURDES G. FERRER, CESO III**  
Regional Executive Director, DENR-MIMAROPA Region  
Chairperson, MWS-PAMB 