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FY 2021**

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FELICITAS R. ULEP
Board Secretary

Excerpt from the Minutes of the FY 2020 3rd & 4th Quarter Regular
Meeting of the Board of Trustees of the Mindoro State College of
Agriculture and Technology (MinSCAT) held on February 17, 2021, 1:00
pm via zoom

Present

Chair Lilian A. De las Llagas, Ph.D. - Chairperson
CHED Commissioner

Vice-Chair Levy B. Arago, Jr., Ph.D. - Vice-Chair
MinSCAT President

Trustee Susan A. Sumbeling - Member
OIC-Direct, NEDA MIMAROPA

Trustee Ma. Josefina P. Abilay, Ph.D. - Member
Director, DOST-MIMAROPA

Trustee Maicho M. Visca - Member
President, MinSCAT Federation of Student Councils

Atty. Joselito C. Alisuag - Member
Director, CHED-MIMAROPA

Absent

Hon. Emmanuel Joel Villanueva - Member
Chair, Senate Committee on Higher Education
Represented by **Atty. Earl Ligorio R. Turano II**
Provincial Legal Officer, Oriental Mindoro

Hon. Mark O. Go - Member
Chair, House Committee on Higher & Technical Education
Represented by **HON. PAULINO SALVADOR C. LEACHON**
Representative, 1st District, Oriental Mindoro

Trustee Antonio G. Gerundio - Member
Regional Executive Director, DA-RFU – MIMAROPA

Resolution No. 10, S. 2021

A Resolution Confirming the Memorandum of Agreement with DOST
PCAARRD on "Marine Assessment within Mansalay Bay, Mansalay,
Oriental Mindoro", and Granting Authority to the President for and in behalf
of the College to sign and enter into the said agreement

I hereby certify to the correctness and authenticity of the foregoing
resolution.

Attested

Sdg

LEVY B. ARAGO, JR., Ph.D.
College President
Vice-Chair, MinSCAT Board of Trustees

Sdg

FELICITAS R. ULEP
Board Secretary

Mindoro State University
CERTIFIED COPY

Sdg

RODRIGUEZ, LITE
Records Officer III

DATE: _____

MEMORANDUM OF AGREEMENT

ON

Marine Resource Assessment within Mansalay Bay, Mansalay, Oriental Mindoro, Philippines

KNOW ALL MEN BY THESE PRESENTS:

This agreement entered into by and among:

The DEPARTMENT OF SCIENCE AND TECHNOLOGY - PHILIPPINE COUNCIL FOR AGRICULTURE, AQUATIC AND NATURAL RESOURCES RESEARCH AND DEVELOPMENT hereinafter referred to as "DOST-PCAARRD", with principal office at Los Baños, Laguna and represented by its Executive Director, **DR. REYNALDO V. EBORA**,

-and-

The MINDORO STATE COLLEGE OF AGRICULTURE AND TECHNOLOGY - BONGABONG CAMPUS, herein referred to as **MinsCAT Bongabong**, an institution of higher learning duly organized under and by virtue of laws of the Republic of the Philippines, with address at Brgy. Labasan, Bongabong, Oriental Mindoro represented herein by its President, **DR. LEVY B. ARAGO, JR.**;

WHEREAS, the abovementioned project was approved by the **PCAARRD Directors Council** on 20 October 2020 via Video Conferencing.

NOW THEREFORE, for and in consideration of the foregoing premises, the PARTIES hereby agree to the following terms and conditions:

WITNESSETH:

I. Purpose

This agreement seeks to implement the project **Marine Resource Assessment within Mansalay Bay, Mansalay, Oriental Mindoro, Philippines**

II. Objectives

The project generally aims to profile the biodiversity of Mansalay Bay. Specific objectives are:

1. Asses biodiversity of the different ecosystems (mangrove, seagrass and coral reefs) of Mansalay Bay;
2. Evaluate resource utilization of resources with focus on artisanal fishers;
3. Increase conservation awareness for sustainable resource use for the bay; and
4. Create options that may be utilized by small scale fishers that may be affected by conservation restrictions.

III. Expected Outputs

Products

- Mansalay Bay Marine Resources Profile
- Draft Management Plan for Mansalay Bay



KATHERINE P. SANCHEZ-ESCALONA
Project Leader, MinSCAT

LEVY B. ARAGO, JR.
President, MinSCAT

ABEGAIL GRACE M. MARALIT
Accountant II, PCAARRD

MARI-ANN M. ACEDERA
Director, MPRD-PCAARRD

REYNALDO V. EBORA
Executive Director, PCAARRD

2021 0111 0181

Publication

- One (1) paper publication
- One (1) paper presentation
- One (1) field guide publication

People and Services

- Capacity building for different stakeholders: 20 fisherfolks, 2 fisherfolk organizations, 10 Bantay Dagat personnel, and 2 representatives from the coastal communities.
- Other possible people that may benefit for information campaign may include local school teachers and students.

Places and Partnership

- Partnership with LGU of Mansalay, Oriental Mindoro
- Partnership with Haribon Foundation, Conservation International, Blue Finance and UP Diliman Marine Science Institute

Policy

- Science-based information as input to enabling policy for the establishment of MPA in Mansalay Bay

Social and Economic Impacts

- The project will enhance the knowledge on management and conservation for better appreciation of concerned communities of its ecotourism and ecological values
- Creation of alternative livelihood options around conservation efforts

IV. Duration of the Project

The project shall be implemented for two (2) years, covering the period 16 December 2020 – 15 December 2022. The project shall commence immediately or within two (2) months after the release of funds. In case there is a change in actual date of implementation, it shall be requested from **DOST-PCAARRD** by the **MinSCAT**.

V. Rights and Obligations of the Parties

DOST - PCAARRD shall:

- a. Provide financial support for the project with a total grant of **Four Million Nine Hundred Eighty-Four Thousand Fifty-Nine Pesos (P 4,984,059.00)**.

For its Year 1 implementation, the total amount of **Two Million Nine Hundred Fifty-Six Thousand Seven Hundred Sixty-Seven Pesos (P 2,956,767.00)** shall be remitted to **MinSCAT**, the line-item budget of which is attached as **Annex A** and made an integral part hereof.

Such grant shall be for the Year 1 implementation of the project to be led by **MinSCAT** and to be expended as allocated in the project's approved line-item budget and released subject to the terms and conditions specified in the "Revised Guidelines for the Grants-In-Aid Program of the Department of Science and Technology and Its Agencies (DOST Administrative Order No. 011, Series of 2020, effective 02 September 2020 (see **Annex B**). These guidelines shall govern the implementation of the project

- b. Monitor and evaluate the implementation of the project in accordance with the objectives and the workplan;

- c. Conduct periodic field evaluation of the project to identify problems, solutions and remedial actions to avoid delays in implementation;
- d. Provide adequate coordinative and efficient administrative support and management system necessary for the smooth implementation of the project;
- e. ensure that specific workplan agreed by all parties are adhered to including budgets necessary to implement such plans;
- f. Review periodic financial reports submitted by the implementing agency; and
- g. Appraise technical reports (semi-annual, annual, publishable report and terminal), as far as applicable.

The implementing agency, the MinSCAT, through its President, **Dr. Levy B. Arago, Jr.**, binds itself to implement the project under an assigned Project Leader, **Dr. Katherine P. Sanchez-Escalona** of MinSCAT in accordance with the approved project proposal (made part hereof as **Annex C**) and shall be strictly implemented following the project's work and financial plan.

Among the responsibilities of the implementing agency as provided for in this guideline are as follows:

MinSCAT shall:

1. Exert all efforts (such as providing facilities and technical personnel with the required expertise) to attain the objectives stated in the proposal;
2. Take the lead in the implementation of project activities and coordinate with other collaborating agencies (as far as applicable); and
3. Hire the required project personnel as indicated in the approved proposal in accordance with the existing hiring policies of the agency and the approved line-item budget; request approval from DOST-PCAARRD of any changes in the position/designation of the project personnel to be hired; and submit list of personnel engaged in the project following DOST Form 11.
4. Submit the following technical accomplishment reports duly endorsed by the Agency Head to DOST-PCAARRD:
 - 4.1 An acceptable semi-annual progress report (as far as applicable) using DOST Form 6 in two (2) hard copies and one (1) electronic copy within a month after the end of the project semester.
 - 4.2. An acceptable annual technical accomplishment report using DOST Form 7 in two (2) hard copies and one (1) electronic copy within two (2) months after the end of project implementation. In case of a program, a consolidated annual program report shall be submitted in addition to the individual project reports.
 - 4.3. A quality terminal technical report following DOST Form 15 in two (2) hardcopies and one (1) electronic copy within two (2) months after project completion which shall be accompanied by two (2) hardcopies and one (1) electronic copy of publishable technical report. The publication of such paper in any existing scientific or professional journal should meet the standards set by said journal
5. Disburse funds in accordance with the approved Line-Item Budget (LIB), subject to existing government accounting and auditing procedures, and make necessary reprogramming of funds for not more than three (3) times in each implementation year, following these rules.



KATHERINE P. SANCHEZ-ESCALONA
Project Leader, MinSCAT

LEVY B. ARAGO, JR.
President, MinSCAT

ABEGAIL GRACE M. MARALIT
Accountant II, PCAARRD

MARYANN M. ACEDERA
Director, MRRD-PCAARRD

REYNALDO V. EBORA
Executive Director, PCAARRD

- 5.1 Approve, through Implementing Agency Head or his authorized representative, any reprogramming/transfer of funds of existing expense items (other than those enumerated in 5.2) budget as originally approved by the DOST-PCAARRD to augment direct and indirect cost under PS, MOOE and EO. A copy of approval shall be provided to DOST-PCAARRD within two (2) weeks for documentation/concurrence of the monitoring division, otherwise the approved reprogramming shall be null and void;
- 5.2 Exceptions to the provisions of 5.1 are the following:
- 5.2.1 Budget for the Foreign Travel and Training
- 5.2.2 Renaming and reclassification of expenses items, and creation of new expense item, including increase/decrease of numbers of items (e.g., equipment, personnel) originally approved in the LIB and upgrading/downgrading of positions from the originally approved PS
- 5.2.5 Increase in indirect cost budget exceeding the 7.5% ceiling for indirect cost
6. The use of foreign travel funds, if provided for in the approved LIB, shall be governed by DOST Administrative Order No. 001, series of 2017: Revised Rules on Foreign Travel of DOST Personnel and Rules Governing the Use of Travel Grants for Paper/Poster Presentation, effective 29 January 2018.
7. Submit at least three (3) copies of the following financial reports to DOST-PCAARRD:
- 7.1. Semi-annual financial report (as far as applicable) using DOST Form 8, certified correct by the agency accountant and approved by the agency head within a month after each semester, supported by the Report of Disbursement (ROD)/Report of Checks Issued (RCI).
- 7.2. Annual financial report using DOST Form 8 certified correct by the agency accountant and approved by the agency head within two (2) months after end of each implementation year.
- 7.3. Terminal audited financial report (TAFR) using DOST Form 1 within three (3) months after project completion. The reported unexpended balance shall be refunded back to DOST-PCAARRD.
- For private higher education institutions (HEIs) and research and development institutions (RDIs), an audited FR shall be submitted, duly certified by a licensed accountant together with an Audit Certificate/Report.
- Financial reports are accompanied by DOST Forms 9 (Schedule of Accounts Payable), 11 (List of Personnel), 12 (List of Equipment), and 13 (Report of Income/Interest Generated/Earned, whenever applicable).
8. Be accountable for equipment purchased for the project. Only those equipment listed in the approved proposal shall be purchased by the agency following the government Procurement Reform Act. DOST-PCAARRD remains to be the owner of all equipment purchased out of its grant and shall have the right to transfer/assign/donate such to anyone after the project completion.
- Enter all equipment purchased in the institution's books on inventory of equipment. Submit report on equipment purchased using DOST Form 12 with the corresponding Property Acknowledgement Receipts (PARs).

9. Make available to authorized officials of DOST-PCAARRD and the Commission on Audit during office hours, the records of project operations and books of accounts for inspection whenever necessary.

KATHERINE P. SANCHEZ-ESCALONA
Project Leader, MinSCAT

LEVY B. ARAGO, JR.
President, MinSCAT

ABEGAIL GRACE M. MARALIT
Accountant II, PCAARRD

MARIANN M. ACEDERA
Director, MRRO-PCAARRD

KEYNALDO V. EBORA
Executive Director, PCAARRD



10. Present the project results in agency in-house reviews/program review and/or at least in one seminar or scientific meeting for the purpose of disseminating the information and technology generated from the project; without prejudice to the provision of Section VI hereof

Project Leader (Dr. Katherine P. Sanchez-Escalona) shall:

- a. Facilitate and monitor the implementation of project activities;
- b. Coordinate, facilitate and monitor the preparation of the project's accomplishments and financial reports which shall be packaged as a project output.
- c. Consolidate project's accomplishment reports and prepare syntheses of accomplishment reports; and
- d. Maintain close communication and coordination with DOST-PCAARRD.

VI. Ownership and Utilization of Information, Technologies, Inventions and Improvements

The Implementing Agency and the researcher recognize that results of the project and the rights to publication, except those that relate to intellectual property concerns, belong jointly to the researchers and implementing agencies. Ownership of intellectual property and intellectual property rights shall be governed by but not limited to, Chapter II, Rule 5 and Rule 6 of the Implementing Rules and Regulations of Republic Act (R.A.) 10055.

Any publication arising from the research and other activities undertaken by virtue of this agreement shall identify the Implementing Agency as the source of the output.

Full acknowledgments shall accordingly be given to DOST-PCAARRD in case the research results are published or presented in various forums, seminars, meetings. Such presentation should not prejudice the proprietary/confidential nature of the information as heretofore mentioned for purposes of intellectual property protection.

Subject to the limitations recognized by law, particularly those that relate to intellectual property, the implementing agencies reserve the right to use all data and findings by virtue of and pursuant to this agreement for the enhancement of its academic and research programs.

VII. Discontinuance of Assistance

DOST-PCAARRD reserves the right to:

- a. Discontinue the project of its assistance at anytime with prior consultation with Implementing Agency for violation of this agreement or when it is determined that the results obtained or are reasonably expected to be obtained do not justify further activity for reasons attributable to the willful act of the project leader and/or implementing team; Suspend the project and the disbursement of funds for violation of any part of this agreement;
- b. Terminate the project when funds are not available from the national government.

Discontinuance of assistance, suspension or termination of this agreement shall be done by DOST-PCAARRD upon prior consultation with the Project Leader and MinSCAT. In case of suspension, upon receipt of the written notice therefore, the implementing agency shall cease disbursement of project funds and shall resume only upon the written advice of DOST-PCAARRD. In case of termination, DOST-PCAARRD shall notify the Project Leader at least forty-five (45) days before the date of termination so that he/she could accordingly notify the project staff at least a month before the date of project termination.

KATHERINE P. SANCHEZ-ESCALONA
Project Leader, MinSCAT

LEVY B. ARAGO, JR.
President, MinSCAT

ABEGAIL GRACE M. MARALIT
Accountant II, PCAARRD

MARIAN M. ACEDERA
Director, MFRD-PCAARRD

REYNALDO V. EECORA
Executive Director, PCAARRD

ACKNOWLEDGEMENT

Republic of the Philippines)
Municipality of Los Baños) S.S.

BEFORE ME, A NOTARY PUBLIC for and in Los Baños, Laguna, Philippines, on this
JAN 26 2021, 2020, personally appeared:

<u>NAME</u>	<u>COMM. TAX RECEIPT NO.</u> <u>PASSPORT NO.</u>	<u>DATE/PLACE ISSUED</u>
Dr. Reynaldo V. Eborá	Passport No. S0005685A	17 August 2017/DFA Manila
Dr. B. Arago, Jr.	Passport No. P4245817B	17 December 2019/ DFA Manila

Sdg

Known to me to be the same persons who executed the foregoing instrument and they acknowledged to me that the same is their free and voluntary act and deed as well as that of the Corporations/Entities they represent.

The foregoing, which refers to a Memorandum of Agreement, consists of seven (7) pages including this page wherein this Acknowledgment is written, and has been signed by the parties and witnesses on all pages.

WITNESS MY HAND AND SEAL on the date and place above-written.

Doc No. 1103
Page No. 34
Book No. 400
Series of 2020

Sdg

ATTY. ELEN O. PERALTA
Notary Public Until December 31, 2021
Calamba City, Los Baños, Bay, Calauan, Laguna
PIR No. 179062/01-04-21, Roll No. 33800/May 1986
IBP No. 13218/11-09-20, Not. Com. No. 01-2020-C



VIII. Amendment Provision

Any additional or amendments to the stipulations hereof shall be done through a supplementary agreement to be prepared by the party requiring such and shall be mutually consented by the parties. Notarization of such shall be taken care of by the party who prepared the amendments/additional provisions.

IX. Repealing Clause

All parties agree that this MOA contains the full agreement of the parties and supersedes all previous agreements either written or oral if there are any.

X. Alternative Dispute Resolution

All disputes, controversies, or claims arising out or relating to this contract, shall be settled through negotiation and/or mediation and shall be decided by arbitration in accordance with the rules of the UNICITRAL Law as adopted in RA 9285 (Alternative Dispute Resolution Law of 2004). This is, however, without prejudice to the provision of Rule 26 of RA 10055 on resolution of disputes, particularly on matters pertaining to ownership.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands, this _____ at _____.

PCAARRD:

Sdg

REYNALDO V. EBORA
Executive Director

Sdg

MinSCAT:

Sdg

LEVY B. ARAGO, JR.
President

WITNESSES:

Sdg

MARI-ANN M. ACEDERA
Director, MRRD
PCAARRD

Sdg

KATHERINE P. SANCHEZ-ESCALONA
Project Leader
MinSCAT

Certified Funds Available:

Sdg

ABEGAIL GRACE M. MARALIT
Accountant II, PCAARRD

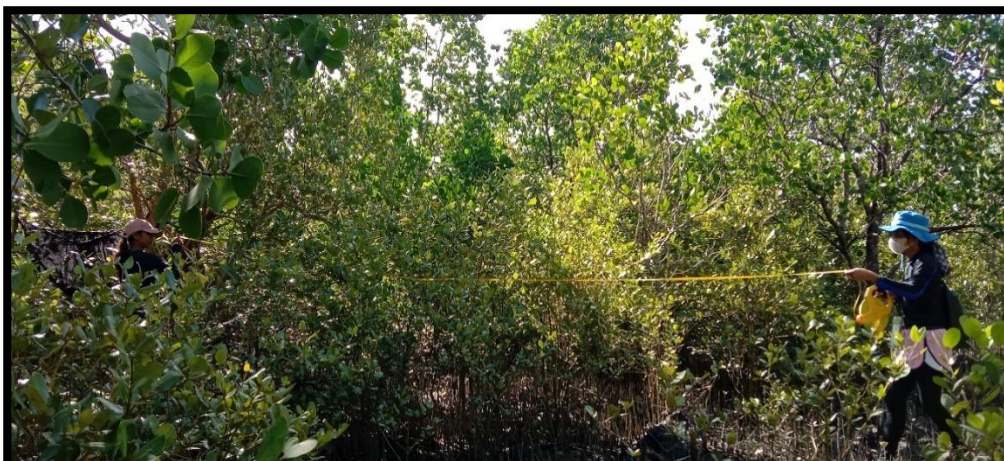


ABUNDANCE AND DIVERSITY OF MOLLUSKS IN THE MANGROVE OF BONGABONG

Description:

This study aims to determine the abundance and diversity present in the mangrove area along Bongabong which is affected by the oil spill. This also includes findings of organisms in the area that seen seasonal.

AREA MEASUREMENT



MEASURING WATER QUALITY PARAMETERS (DO, pH, Salinity and Temperature)



Collecting Samples





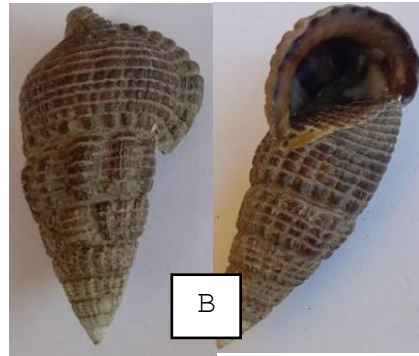
SORTING OF SPECIMEN



Gastropods and Bivalve Identification



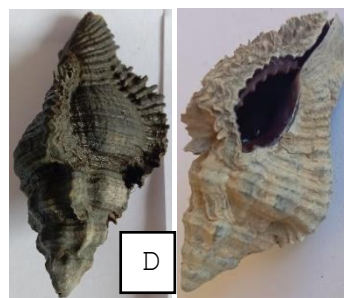
FN: Potamididae
SN: Cerithidae decollate
EN: Truncated mangrove snail
LN: Saka-saka



FN: Potamididae
SN: Terebralia sulcata
EN: Sulcate swamp
LN: Suso/Kambong kambong



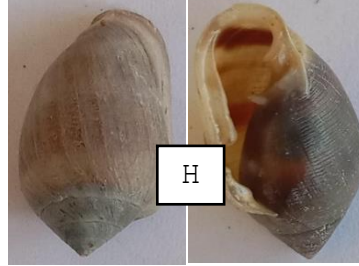
FN: Corbiculidae
SN: Polymesoda expansa
EN: Broad geloina
LN: Lukan/Kayog



FN: Muricidae
SN: Chicoreus capucinus
EN: Mangrove morex
LN: ----



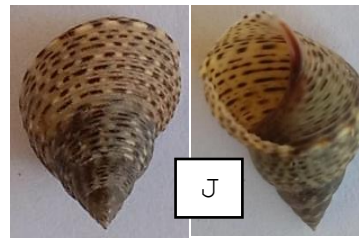
FN: Nerithidae
 SN: Nerita planospira
 EN: Flatspired nerite
 LN: Sihi



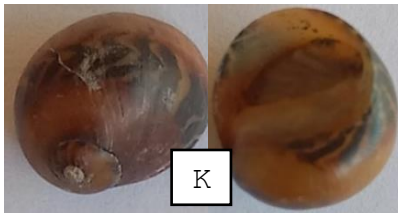
FN: Ellobidae
 SN: Cassidula nucleus
 EN: Banded mangrove ear snail
 LN: -----



FN: Ellobidae
 SN: Cassidula aurisfelis
 EN: Cat's ear cassidula
 LN: -----



FN: Littorinidae
 SN: Littoraria scabra
 EN: Mangrove periwinkle
 LN: ----



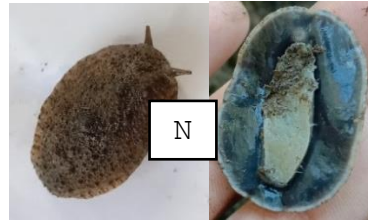
FN: Nerithidae
 SN: Vittina waigiensis
 EN: Red nerite snail
 LN: Tibangka



FN: Nerithidae
 SN: VittA zebra
 EN: Zebra snail
 LN: Tibangka



FN: Plakobranchidae
 SN: Elysia leucolegnote
 EN: Leaf slug
 LN: -----



FN: Onchididae
 SN: Peronia verruculata
 EN: Grey footed mangrove onch slug
 LN: -----

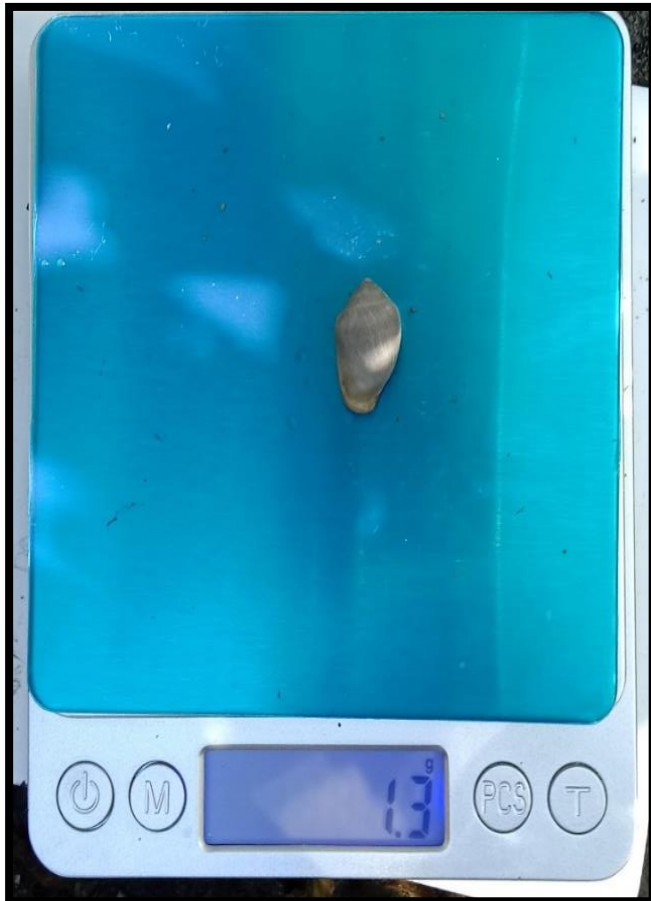
GASTROPODS AND BIVALVE IDENTIFICATION



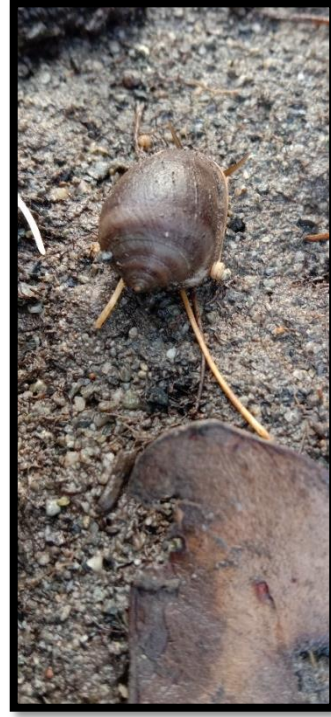


LENGTH AND WEIGHT OF Mollusks





MOLLUSKS SPECIES FOUND IN SITE AREA







MINDORO STATE UNIVERSITY

•Main Campus, Alcate, Victoria •Bongabong Campus, Labasan, Bongabong •Calapan City Campus, Masipit, Calapan City

Species Richness, Relative Abundance, and Diversity Index of Macroinvertebrates Species in Soft Bottom Mangrove Area

BRYAN LESTER R. GARCIA

LEONEL C. CUETO

JOLLIE MARK P. ELIZA

ALGELINE S. HERRERA



OBJECTIVES

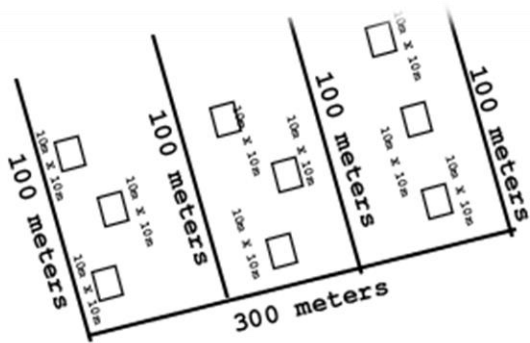
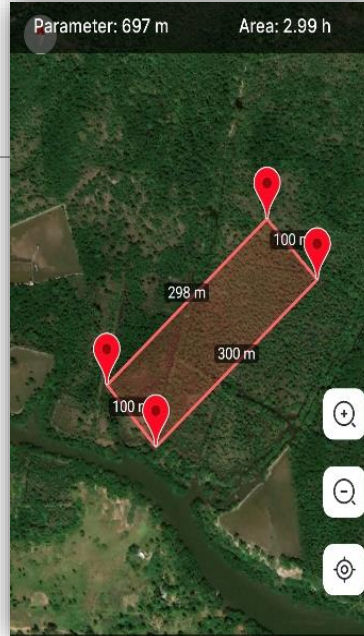
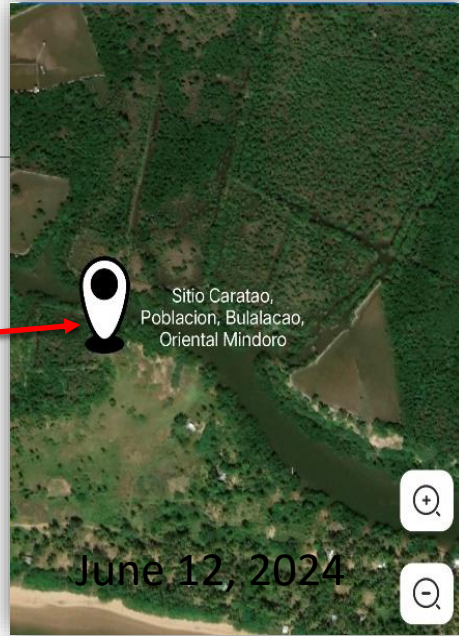
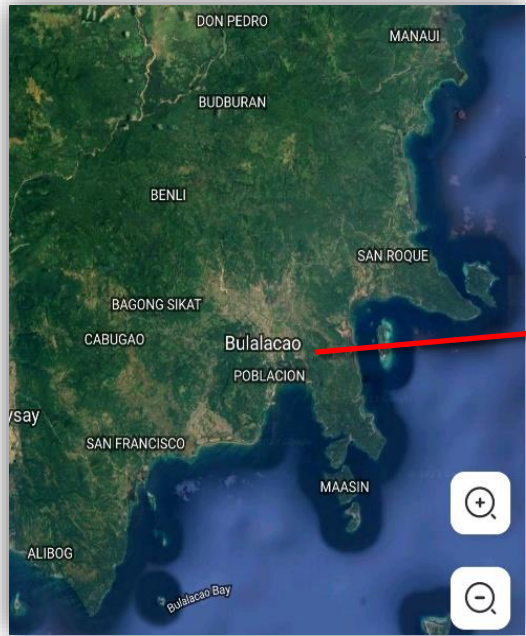
The main goal of this study is to assess the macroinvertebrate species in the soft bottom of mangrove area. Moreover, this ecological study aimed to attain the following objectives:

- to identify the benthic macroinvertebrates present in the sampling site;
- to determine the species richness of the macroinvertebrates on the soft bottom in the mangrove area;
- to determine the relative abundance of macroinvertebrates taxa in the sampling site; and
- to determine the diversity index in the sampling site and zonation.



MINDORO STATE UNIVERSITY

•Main Campus, Alcate, Victoria •Bongabong Campus, Labasan, Bongabong •Calapan City Campus, Masipit, Calapan City





MINDORO STATE UNIVERSITY

•Main Campus, Alcate, Victoria •Bongabong Campus, Labasan, Bongabong •Calapan City Campus, Masipit, Calapan City

METHODOLOGY (Field study, descriptive-ecological research)





Classification of Macroinvertebrates species in three Zonations.

Bivalvia:



Gastropoda:

Malacostraca



Polychaeta

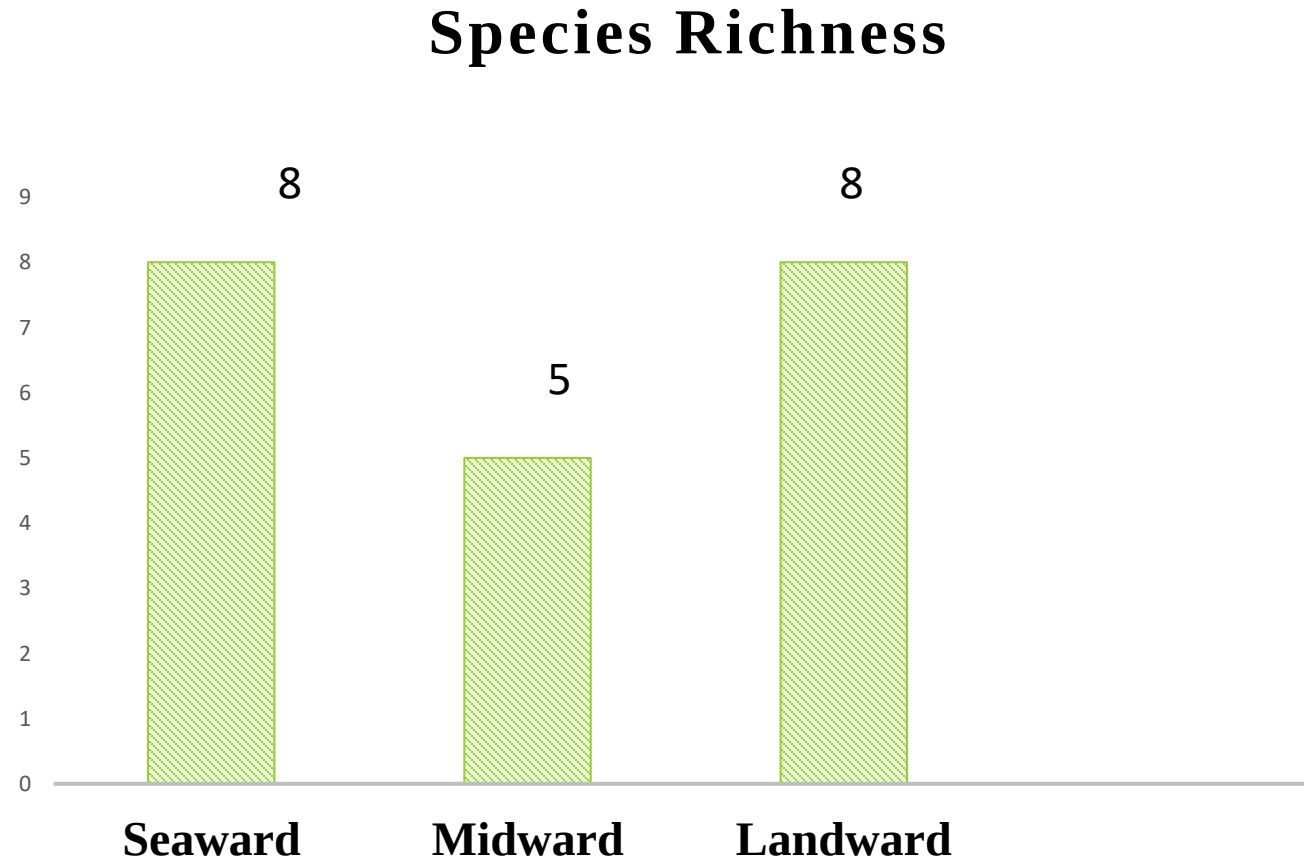


Holothuroida





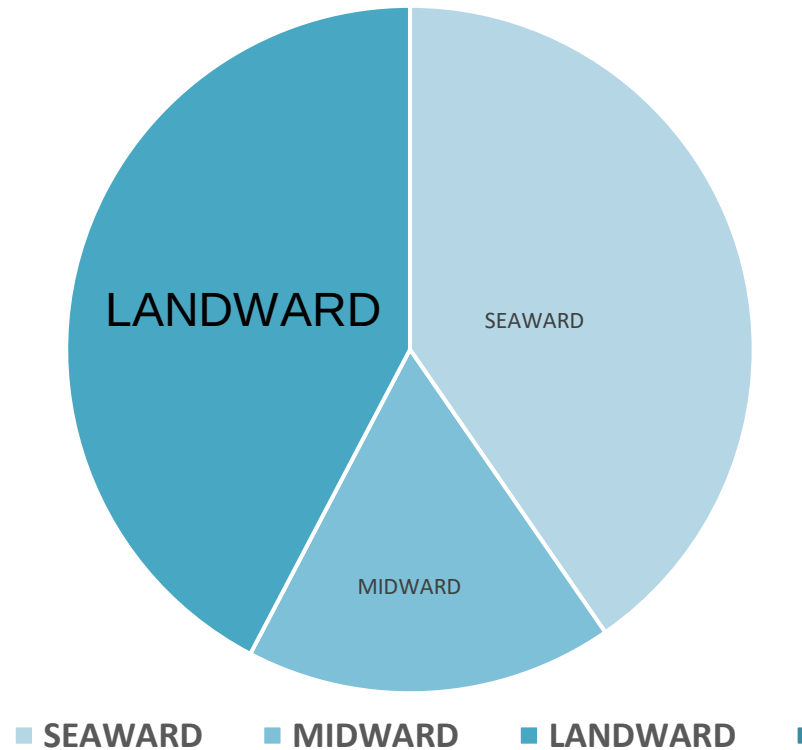
Species Richness of Macroinvertebrates in the Study Site.





Relative Abundance of Macroinvertebrate Species found in the Sampling Area

Relative Abundance of Macroinvertebrate Species





Diversity index of macroinvertebrates in the soft bottom mangrove area

Zonation	Shannon- Wiener diversity index (H')	Description
Seaward	1.82	Very low
Midward	1.46	Very low
Landward	1.68	Very low



Species Richness, Relative Abundance, and Diversity Index of Macroinvertebrate species on the study period

Sampling Period	Species	Species Richness	Relative Abundance			Diversity Index		
			SW	MW	LW	SW	MW	LW
June 2023	0	0	0	0	0	0	0	0
July 2023	11	2.9121	23.08%	9.62%	26.93%	1.0374	0.8176	1.0752
August 2023	8	2.2992	17.30%	7.68%	15.38%	0.7826	0.6424	0.6048
Total			40.38%	17.31%	42.31%	1.82	1.46	1.68



Water Parameters in Sitio Caratoa, barangay Poblacio, Bulalacao, Oriental Mindoro

Zonation	D.O Mg/l	Temperature	Salinity	PH
Seaward	Mg/L=6.4	29°C	Ppt (Salt)= 29.1 PPM (salt)=291 Salt%=2.91	6.70
Middle- ward	Mg/L= 4.2	33.3°C	PPt (salt)=29.3 PPm (salt)= 293 Salt%=2.93	6.87
Landward	Mg/L=10.5	36.9°C	Ppt (salt)=29.6 PPm (salt)=296 Salt%=2.96	7.17



CONCLUSION

- Five classes of macroinvertebrates with fourteen species and fifty-two individuals were recorded from the study site on the onset of the wet season.
- Species richness in the seaward and landward zones are higher compared to the midward zone.
- Macroinvertebrate species vary in the three zonations in terms of taxa.
- Diversity index in the study site, in all zonation were low during the study period. This findings is observed however on the wet season, hence, for more conclusive result, it is recommended to conduct ecological field study as this one to cover as well the dry season, with a period of at least one year.



MINDORO STATE UNIVERSITY

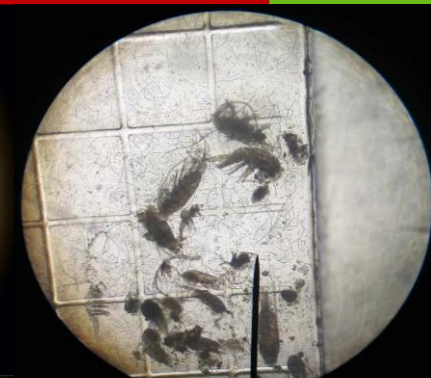
•Main Campus, Alcate, Victoria •Bongabong Campus, Labasan, Bongabong •Calapan City Campus, Masipit, Calapan City

Zooplankton Community in Naujan Lake

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NAUJAN LAKE NATIONAL PARK



STATEMENT OF THE PROBLEM

- Increasing community populations and settlements around the lake, expanding agricultural lands, and anthropogenic activities affect the lake's ecological state.

PURPOSE OF THE STUDY

Determine and assess zooplankton present in the lake relative to the physicochemical parameters: dissolved oxygen, temperature, pH, and total dissolved solids.

RESEARCH QUESTIONS

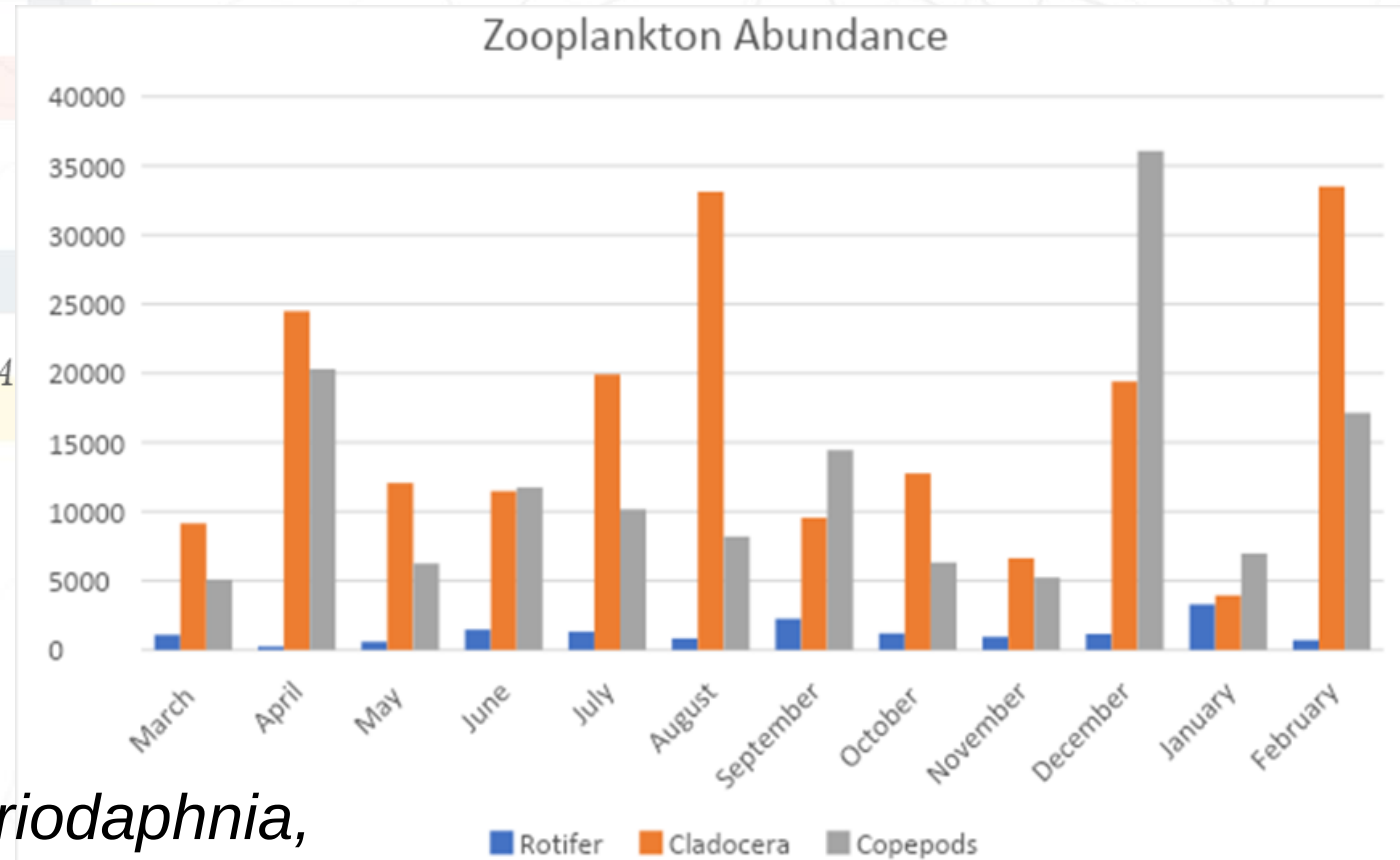
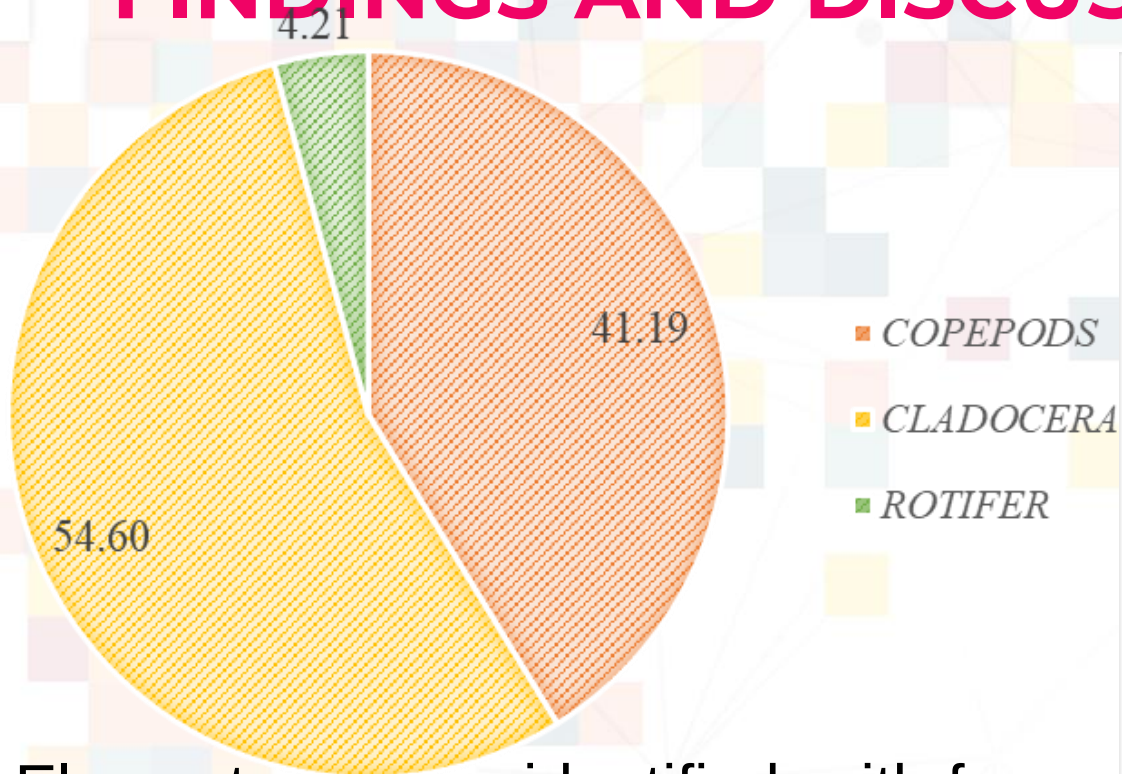
1. What are the composition and abundance of zooplankton in Naujan Lake?
2. How are the zooplankton influenced by the physicochemical factors?
3. What is the ecological state of the lake based on the zooplankton as bioindicators?

METHODOLOGY

Research Design: descriptive survey and sampling for ecological analysis



FINDINGS AND DISCUSSIONS



Eleven taxa were identified, with four (4) genera of Cladocera (*Bosmina*, *Ceriodaphnia*, *Diaphnosoma*, and *Moina*), six (6) for Rotifera (*Asplanchna*, *Brachionus*, *Keratella*, *Lepadella*, *Polyarthra*, and *Trichocerca*) and Copepoda represented by Cyclopoids



FINDINGS AND DISCUSSIONS

Correlation of Physicochemical Parameters

		pH	Temp	DO	TDS	Zooplankton Density
pH	Pearson	1	-.045	-.104	-.312	-.430
	Correlation					
	Sig. (1-tailed)		.445	.374	.161	.082
	N	12	12	12	12	12
Temp	Pearson	-.045	1	.164	.764**	-.104
	Correlation					
	Sig. (1-tailed)	.445		.305	.002	.374
	N	12	12	12	12	12
DO	Pearson	-.104	.164	1	-.220	.470
	Correlation					
	Sig. (1-tailed)	.374	.305		.246	.062
	N	12	12	12	12	12
TDS	Pearson	-.312	.764**	-.220	1	-.012
	Correlation					
	Sig. (1-tailed)	.161	.002	.246		.485
	N	12	12	12	12	12
Zooplankton Density	Pearson	-.430	-.104	.470	-.012	1
	Correlation					
	Sig. (1-tailed)	.082	.374	.062	.485	
	N	12	12	12	12	12

** . Correlation is significant at the 0.01 level (1-tailed).

Table 1 Correlations of Physicochemical Parameters (SPSS)

The highest recorded temperature of the lake was 33.23 °C, noted in March where Cladocera, Rotifera, and Copepoda registered 9,150, 1,094, and 5,087 individual/ml respectively, with 15,331 ind/ml.

TDS ranges from 88-110ppm *50-150 ppm – Excellent for Drinking (Bisleri, Understanding TDS and Its Role in Drinking Water, 2020)

* DENR Philippines WQ Guidelines

CONCLUSION

- ❑ The zooplankton community with reference to its abundance and composition in the lake relative to its physicochemical parameters describe its dynamics.
- ❑ Three classes of zooplankton were present in Naujan Lake namely ***Rotifera, Cladocera, and Copepoda***. Cladocera is the most dominant group of zooplankton comprising 54.60% zooplankton density.
- ❑ Temperature significantly influenced the zooplankton community in the lake.
- ❑ The Lake as well is a promising source for drinking water with its excellent water quality level as defined by its TDS concentration.

RECOMMENDATIONS

Intensive monitoring of the lakes biological and physicochemical aspects is to be periodically done for its sustainability, with its valuable role in ecological and economic services.