

THE OCCURRENCE AND DISTRIBUTION OF FRESHWATER  
VASCULAR PLANTS IN SELECTED AREAS OF CEBU

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A Thesis  
Presented to  
the Faculty of the Graduate School  
University of San Carlos  
Cebu City

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In Partial Fulfillment  
of the Requirements for the Degree  
MAST-BIOLOGY

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by  
Brenda R. Villacanas

October, 1975

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APPROVAL SHEET

This thesis entitled THE OCCURRENCE AND DISTRIBUTION OF FRESHWATER VASCULAR PLANTS IN SELECTED AREAS OF CEBU, prepared and submitted by Miss Brenda Relator Villacanas in partial fulfillment of the requirements for the degree of MAST Major in Biology has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

Thesis Committee

*Araceli G. Almase*

ARACELI G. ALMASE, Ph.D.  
Adviser

*Enrique Schoenig*

ENRIQUE SCHOENIG, SVD, Ph.D.  
Member

*Airlin S. Espina*

AIRLIN S. ESPINA, M.S.  
Member

PANEL OF EXAMINERS

Approved by the Committee on Oral Examination with a grade of Passed.

*Lourdes Y. Varela*  
LOURDES Y. VARELA, Ph.D.  
Chairman

*Araceli G. Almase*  
ARACELI G. ALMASE, Ph.D.  
Adviser

*Enrique Schoenig*  
ENRIQUE SCHOENIG, SVD, Ph.D.  
Member

*Airlin S. Espina*  
AIRLIN S. ESPINA, M.S.  
Member

*Eugenio H. Gabuya*  
EUGENIO H. GABUYA  
Representative  
Bureau of Private Schools

Accepted and approved in partial fulfillment of the requirements for the Degree of Master of Arts in Science Teaching, Major in Biology.

Comprehensive Examinations Passed: May 18 & 19, 1973  
(Date)

*Lourdes Y. Varela*  
LOURDES Y. VARELA, Ph.D.  
Dean, Graduate School

Date: September 23, 1975

This Thesis attached hereto, entitled THE OCCURENCE AND DISTRIBUTION OF FRESHWATER VASCULAR PLANTS IN SELECTED AREAS OF CEBU prepared and submitted by Miss Brenda Relator Villacanas in partial fulfillment for the degree of MAST in Biology is hereby accepted.

*Araceli G. Almase*

---

ARACELI G. ALMASE, Ph. D.  
Adviser

*Enrique Schoeringa SKD*

---

Censor

*L. Varela*

---

LOURDES Y. VARELA  
Dean, Graduate School

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENT . . . . .	i
ABSTRACT . . . . .	ii
LIST OF TABLES . . . . .	v
LIST OF FIGURES . . . . .	vi
INTRODUCTION . . . . .	1
Statement of the Problem . . . . .	1
Importance of the Study . . . . .	3
MATERIALS AND METHODS . . . . .	6
Habitat Survey . . . . .	8
Determination of Species of Freshwater	
Vascular Plants . . . . .	13
1. Collection and preservation . . . . .	13
2. Identification and classification . . . . .	14
Determination of Association, Abundance	
and Distribution of Freshwater Vascular	
Plants . . . . .	16
Determination of the Physico-chemical	
Factors of the Habitats . . . . .	17
1. Nature of the substratum . . . . .	17
2. pH . . . . .	17
3. Depth . . . . .	17
4. Relative turbidity . . . . .	18
5. Exposure to sunlight . . . . .	18



	Page
6. Temperature . . . . .	18
7. Phosphate and nitrate analysis . . . . .	18
RESULTS AND DISCUSSIONS . . . . .	20
Identification and Classification of the	
Freshwater Vascular Plants . . . . .	20
Key to the families . . . . .	20
Description of species . . . . .	22
Association, Abundance, and Distribution	
Patterns of Freshwater Plants . . . . .	38
Physico-chemical Factors of Habitats	
Surveyed . . . . .	63
Distribution Patterns in Relation to the	
Physico-chemical Factors of Habitats	
Surveyed . . . . .	69
CONCLUSIONS . . . . .	84
REFERENCES CITED . . . . .	87
B I O D A T A . . . . .	90

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University of San Carlos  
Cebu City  
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## ABSTRACT

The study deals with the identification and classification of the different species of freshwater vascular plants in the selected areas of Cebu, the determination of the associations, abundance and distribution of these plants in the habitats surveyed, and the effects of the physico-chemical factors of the habitats studied on the abundance and distribution of these plants. The study was conducted from August to October 1973.

A total of twelve families belonging to the classes Filicinae and Angiospermae were represented in the collection. Fourteen genera and eighteen species were identified and classified. Five of these were floating plants, three species were submerged, and nine species were emergent plants.

Dominant species and the types of plant associations differed from habitat to habitat and from quadrat to quadrat. There appears to be a slight distinction in the type of assemblage of plants in the running and standing water habitats. A wider variety of species was characteristic only of standing water habitats.

Ipomea aquatica was the most widely distributed and the most abundant species in running water and least in the standing water habitats.

Next to I. aquatica, N. minor was the most common to all the habitats surveyed. Monochoria and Cyperus were the least abundant.

The physico-chemical features of the habitats surveyed seem to have a very little differential effect on the plants. Average air and water temperature ranged from 26.5°C to 30.5°C. All habitats surveyed had clear to slightly turbid water with average depth ranging from eight cm to 73 cm. The pH ranged from 6.8 to 7.2; phosphate content from .00003 to .005 mg/liter and nitrate content from .002 to .015 mg/liter.

The nature of the substrate varied, with the muddy substrate providing a better attachment for the rooted plants.

There appears to be a definite distribution pattern for the fresh-water vascular plants with respect to the depth. Emergent plants dominate shallow waters or

margins of the water, the floating ones occupy the area farther from the shores, while the submerged plants occupy the deeper portion beyond the area of the floating plants.

LIST OF TABLES

		Page
Table 1 . . .	Species and number of plants per quadrat in Buhisan Creek .....	40
Table 2 . . .	Species and number of plants per quadrat in Guadalupe River .....	40
Table 3 . . .	Species and number of plants per quadrat in Tuburan Creek, Danao City .....	48
Table 4 . . .	Species and number of plants per quadrat in Sto. Rosario rice paddy, Aloguinsan .....	49
Table 5 . . .	Species and number of plants per quadrat in Villa Roca Pond, Consolacion .....	52
Table 6 . . .	Species and number of plants per quadrat in water-logged area, Yati, Liloan .....	58
Table 7 . . .	Species and number of plants per quadrat in Cantabaco Pond, Toledo City .....	59
Table 8 . . .	Species and number of plants per quadrat in Magdugo rice paddy, Toledo City .....	62
Table 9 . . .	Distribution and abundance of species identified in the habitats surveyed .....	66
Table 10 . . .	Physico-chemical features of habitats surveyed .....	68

## LIST OF FIGURES

	Page
Fig. 1 . . . Map of Cebu showing locations of freshwater habitats surveyed . . . . .	7
Fig. 2 . . . Sketch of portion of Buhisan Creek showing location of quadrats . . . . .	9
Fig. 3 . . . Sketch of portion of Guadalupe River showing location of quadrats . . . . .	9
Fig. 4 . . . Sketch of portion of Tuburan Creek showing location of quadrats . . . . .	10
Fig. 5 . . . Sketch of Villa Roca Pond studied showing location of quadrats . . . . .	10
Fig. 6 . . . Water logged area Yati, Liloan . . . . .	12
Fig. 7 . . . Sketch of Cantabaco Pond . . . . .	12
Fig. 8 . . . Sketch of Magdugo rice paddy showing location of quadrats . . . . .	15
Fig. 9 . . . Sketch of Aloguinsan rice paddy showing location of quadrats . . . . .	15
Fig.10 . . . <u>Marsilea Crenata</u> plants . . . . .	23
Fig.11 . . . <u>Pistia stratiotes</u> plants . . . . .	28
Fig.12 . . . <u>Najas minor</u> branches . . . . .	33
Fig.13 . . . Location of quadrat 1 Buhisan Creek . . . . .	41
Fig.14 . . . Location of quadrat 2 Buhisan Creek . . . . .	41
Fig.15 . . . Location of quadrat 3 Buhisan Creek . . . . .	43
Fig.16 . . . Location of quadrat 2 Guadalupe River . . . . .	43
Fig.17 . . . Location of quadrat 1, Tuburan . . . . .	46
Fig.18 . . . Location of quadrat 2 & 3, Tuburan . . . . .	46
Fig.19 . . . Location of quadrat 2, Aloguinsan . . . . .	50
Fig.20 . . . Location of quadrat 2, Villa Roca . . . . .	50