

THE MICROMYCOFLORA FROM SOIL SAMPLES IN PIT-OS,
TALAMBAN AND BANILAD, CEBU CITY
WITH NOTES ON THEIR
ECONOMIC IMPORTANCE

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

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Biology

by
Anthony L. Awa
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APPROVAL SHEET

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ABSTRACT

Soil samples from four ecological sites such as garden, compost pit, grassland and pigerry soils were collected from three stations established in Pit-os, Talamban and Banilad, Cebu City. Sampling in January, March and May, 1994 were utilized for isolation of soil-borne micromycoflora using serial dilution. Plate-culture technique with Sabouraud Agar and Corn Meal Agar media was undertaken. The physico-chemical parameters of the soil such as temperature, pH, moisture content, organic matter content and available phosphorus and potassium were determined using standard methods.

Twenty-two micromycofloral species isolated belonged to two classes, two orders, three families and eight genera. Genus Aspergillus had the most abundant species isolated. Other genera isolated were Penicillium, Mucor, Rhizopus, Syncephalastrum, Monilia, Trichoderma and Gliocladium. The economic importance of the isolated species were also noted.

The relationship of the physico-chemical parameters and fungal composition in total number of isolated species were determined using simple regression analysis. Soil pH had an inverse relationship with fungal composition and potassium had a positive correlation. Micromycofloral composition on the different ecological sites were compared using one-way ANOVA. Analysis revealed no significant difference in the micromycofloral composition of the different ecological sites.

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TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENT	iii
ABSTRACT	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF PLATES	
CHAPTER	
1 THE PROBLEM AND ITS SCOPE	1
Introduction	1
Review of Related Literature	4
Statement of the Problem	8
Significance of the Study	8
Scope and Limitation of the Study	9
2 MATERIALS AND METHODS	11
The Study Area	11
Sampling Method and Collection of the Fungi	11
Culture Technique for Soil Samples	13
Identification, Classification and Description of Fungi	14
Determination of Some Physico-Chemical Parameters	15
Determination of Species Occurrence and Composition	16
3 RESULTS AND DISCUSSION	18
Soil Micromycofloral Composition	18

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	PAGE
Classification of the Isolated' Species	17
Description and Economic Importance of the Isolated Species	22
Occurrence of Micromycofloral Isolates	56
Physico-Chemical Characteristics of the Soil . .	63
Soil Physico-Chemical Parameters and Micromycofloral Composition	67
Temperature	69
pH	70
Moisture Content	71
Organic Matter Content	71
Available Phosphorus	72
Available Potassium	73
Species Composition on the Different Ecological Sites	74
SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	77
Summary	77
Findings.	78
Conclusions	79
Recommendations	80
BIBLIOGRAPHY	71

APPENDICES	74
A. Glossary	74
B. Systematic Accounts of Isolated Soil Fungi in Talamban, Cebu City	77
C. Identification and Description Guide for Micromycofloral Cultures	86
CURRICULUM VITAE	90

LIST OF TABLES

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TABLES
PAGE

1	Composition of Soil Micromycofloral Isolates from Pit-os, Talamban and Banilad, Cebu City (January, March and May 1994)	19
2	Composition and Occurrence of Soil Micromycofloral Species Isolated by Plate - Culture in Pit-os, Talamban and Banilad, Cebu City (January, March and May 1994)	58
3	Occurrence, Frequency and Relative Frequency of Occurrence of the Isolated Micromycofloral Species in Pit-os, Talamban and Banilad, Cebu City (January, March and May	60
4	List of Most and Least Frequently Isolated Species and Occurrence Values	61
5	Total Number of Isolated Species in Relation to Mean Values of the Physico-Chemical Parameters of the Soil Samples from Different Ecological Sites in Pit-os, Talamban and Banilad, Cebu City (January, March and May 1994)	64
6	Correlation Matrix By Simple Regression Analysis on Soil Physico-Chemical Parameters and Fungal Composition (Total Number of Isolated Species)	68
7	Species Composition (in total number of species isolated) on the Different Ecological Sites	75
8	One-way Anova Table (Species composition on the different ecological sites)	75

LIST OF FIGURES

FIGURE		PAGE
1	Map of the Study Area	12
A	Illustration of the Isolated Genera of Mucorales (Class Zygomycetes).....	93
B	Illustration of the Isolated Genera of Moniliales (Class Deuteromycetes).....	94
C	Illustration of the Isolated Genera of Moniliales (Class Deuteromycetes)....	95

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