

**TERATOGENIC AND CYTOTOXIC ACTIVITY OF *Xylaria papulis*
COLLECTED FROM PARACELIS, MOUNTAIN PROVINCE**

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TABLE OF CONTENTS

	PAGE
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF APPENDICES	ix
LIST OF APPENDIX TABLES	x
LIST OF APPENDIX FIGURES	xi
ABSTRACT	xii
INTRODUCTION	1
Background of the Study	1
Objectives of the Study	3
Significance of the Study	4
Scope and Limitations of the Study	4
Time and Place of the Study	5
REVIEW OF RELATED LITERATURE	6
Mountain Province	6
Paracelis, Mountain Province	6
Mushrooms	7
<i>Xylaria papulis</i>	9
Medicinal and nutraceutical properties of mushroom	11
Toxicity of mushroom	13
Teratogenic and Toxicity Testing	14
The zebrafish	15
Zebrafish as model for teratogenicity	15
Cytotoxicity	18
Brine shrimp (<i>Artemia salina</i>)	18
Brine shrimp as model for cytotoxicity	18
Brine shrimp lethality assay	19
MATERIALS AND METHODS	20
Source of <i>Xylaria papulis</i>	20
Preparation of extracts	20
Sub-study I. Teratogenicity	20

Preparation of aquarium tank	20
Zebrafish care, culture and maintenance	20
Zebrafish spawning and egg production	21
Harvesting of fertilized eggs	21
Treatment preparation	21
Zebrafish (<i>Danio rerio</i>) teratogenicity and toxicity assay	22
Sub-study II. Cytotoxicity	23
Source of brine shrimp (<i>Artemia salina</i>) eggs	23
Dilution of extract	23
Hatching set-up	24
Hatching of brine shrimp eggs	24
Brine shrimp lethality assay	25
Data gathered	25
Statistical analysis	26
RESULTS AND DISCUSSION	27
Sub-study I. Teratogenicity	27
Percentage Mortality	27
Heartbeat Rate	30
Percent Hatchability	31
Teratogenicity of <i>Xylaria papulis</i> Ethanol Extract	32
Morphological endpoints of treated <i>D. rerio</i> embryos	32
Growth retardation	34
Other malformation and morphological abnormalities	34
Sub-study II. Cytotoxicity	36
SUMMARY, CONCLUSION AND RECOMMENDATIONS	39
Summary	39
Conclusion	40
Recommendation	40
LITERATURE CITED	42
APPENDICES	50

LIST OF TABLES

TABLE		PAGE
1	Stages of embryonic development of the <i>D. rerio</i> at 26±1°C (Kimmel <i>et al.</i> , 1995)	17
2	Treatment assignments of the different concentrations in assessment of teratogenicity of <i>X. papulis</i> ethanol extract	22
3	Different toxicological endpoints of zebrafish (Schulte & Nagel, 1994)	23
4	Treatment assignments of the different concentrations in assessment of cytotoxicity of <i>X. papulis</i> ethanol extract	24
5	Mean percentage mortality of <i>D. rerio</i> embryos after 12, 24, 36 and 48 hours of exposure to different concentrations of <i>X. papulis</i> ethanol extract	28
6	Mean heartbeat of embryos on various concentrations of the <i>X. papulis</i> ethanol extract	31
7	Mean percentage hatchability of <i>D. rerio</i> embryos after 36 and 48 hours of exposure to different concentrations of <i>X. papulis</i> ethanol extract	32
8	Lethal and teratogenic effects of various concentrations of <i>X. papulis</i> ethanol extract at 12, 24, 36, and 48 hours of exposure	33
9	Mean percentage mortality of <i>A. salina</i> nauplii after 24 hours of exposure to different concentrations of <i>X. papulis</i> ethanol extract	37

LIST OF FIGURES

FIGURE		PAGE
1	<i>Xylaria papulis</i>	10
2	Toxic effects of various concentrations <i>X. papulis</i> ethanol extract at different hours of exposure. (A) coagulation (Coa) at 36 hpta in 1250 ppm concentration; (B) coagulation (Coa) at 36 hpta in 1000 ppm concentration; (C) coagulation (Coa) at 36 hpta in 750 ppm concentration; (D) coagulation (Coa) at 48 hpta in 1250 ppm concentration; (E) coagulation (Coa) at 48 hpta in 1000 ppm concentration; and (F) coagulation at 48 hpta in 750 ppm concentration.	29
3	Morphological development of embryos exposed to different concentrations of <i>X. papulis</i> ethanol extract.	35
4	Toxic and teratogenic effects of various concentrations of <i>X. papulis</i> ethanol extract: (A) little pigmentation (Lp), microcephaly (Mi), bent tail (Bt), and abdominal edema (Ae) at 12hpta in 1250 ppm concentration; (B) microcephaly (Mi), pericardial edema (Pe), bent tail (Bt), and abdominal edema (Ae) at 24hpta in 1000 ppm concentration; (C) limited pigmentation (Lp), microcephaly (Mi), yolk deformity (Yd), curved tail (Ct), and no gut (Ng) at 36hpta in 1000 ppm concentration; (D) yolk deformity (Yd), microcephaly (Mi), coagulation (Coa), and at 48hpta in 750 ppm concentration.	36
5	Point estimate of LC_{50} value of <i>X. papulis</i> ethanol extract after 24 hours of exposure.	38

LIST OF APPENDICES

APPENDIX		PAGE
A	Analysis of Variance Tables of the Results of Teratogenicity and Cytotoxicity Assay	51
B	Probit Analysis	53
C	Experimental procedure	54

LIST OF APPENDIX TABLES

APPENDIX TABLE	PAGE
1 Analysis of variance of percentage mortality of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 12 hours of exposure	51
2 Analysis of variance of percentage mortality of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 24 hours of exposure	51
3 Analysis of variance of percentage mortality of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 36 hours of exposure	51
4 Analysis of variance of percentage mortality of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 48 hours of exposure	51
5 Analysis of variance of percentage heartbeat of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 36 hours of exposure (pharyngula stage)	52
6 Analysis of variance of percentage hatchability of zebrafish embryo treated with <i>X. papulis</i> ethanol extract after 48 hours of exposure	52
7 Analysis of variance of percentage mortality of brine shrimp larva treated with <i>X. papulis</i> ethanol extract after 24 hours of exposure	52
8 Probit analysis for the median lethal concentration (LC_{50})	53

LIST OF APPENDIX FIGURES

APPENDIX FIGURE		PAGE
1	Dried samples of <i>X. papulis</i>	54
2	Powdered samples of <i>X. papulis</i>	54
3	Acclimatization of zebrafish	55
4	Spawning of zebrafish	55
5	Microscopic examination of zebrafish embryos	55
6	Hatching set-up for brine shrimp lethality assay	56
7	Observation of dead brine shrimp larvae using magnifying lens	56

ABSTRACT

DOMINGO, LOIS KRISTIEN F., Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija Philippines, **MAY 2019, TERATOGENIC AND CYTOTOXIC ACTIVITY OF *Xylaria papulis* COLLECTED FROM PARACELIS, MOUNTAIN PROVINCE**

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Macrofungi is a diverse group of organisms that have been known to be utilized by ancient people since earliest times for a number of their functions. In the Philippines, macrofungi have been part of the horticultural diversification of the people and have been used by indigenous people across the country. With this being said, *Xylaria papulis* collected from Paracelis, Mountain Province have been assessed for its teratogenic and cytotoxic activities. Ethanol extract exhibited teratogenic effects to developing *D. rerio* embryos. The most notable of these are growth retardation, and head and tail malformations. Mortality rates of the embryos were significantly high due to exposure to different concentrations of the macrofungi ethanol extract and the hatchability was completed after 48 hours for concentrations ≤ 250 ppm. Abnormal heart beat rates, as well as pericardial edema causing weak and slow heart beats were noted suggesting defective cardiac function and cardio-toxicity of the extract. Cytotoxicity was observed in all the treatments except for the control with 0% mortality. The highest mean percentage mortality of 90% was recorded in 1250 ppm. Brine shrimp lethality assay also showed an LC_{50} of 218.507 ppm, which indicates that the extract is highly toxic.

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