



**EFFECTS OF PANDAN (*Pandanus amaryllifolius*) AND BAMBOO
(*Bambusa vulgaris* Schrad.) LEAF DECOCTIONS ON BLOOD
GLUCOSE LEVEL OF TYPE II DIABETES – INDUCED
ALBINO MICE**

An Undergraduate Research Presented to the

Biological Sciences Department

De La Salle University – Dasmariñas

Dasmariñas City

In Partial Fulfilment of the Requirements for the degree of
Bachelor of Science in Biology major in Human Biology

Camile Elaine B. Noche

Judyanne Alma M. San Juan

March 2013



ABSTRACT

The study evaluates the hypoglycaemic effect of pandan and bamboo leaf decoctions. Fifty percent (50%; 1:1v/v) was prepared for each of the plant species. Thirty six (36) mice were induced with Type 2 Diabetes Mellitus using commercially available Alloxan and were treated with pandan and bamboo leaf decoctions. Blood glucose level was analyzed and indicated that both plants are effective in reducing the blood glucose level ($p \leq 0.05$). This may be due to the natural compounds including flavonoids, xanthenes, triterpenoids, alkaloids, glycosides, alkyldisulfides, aminobutyric acid derivatives, guanidine, polysaccharides and minerals. Hence, there is no significant difference on the effectiveness of both plant leaf decoctions and the commercially available drug – metformin.



TABLE OF CONTENTS

Chapter 1 Introduction

Background of study.....7

Conceptual Framework.....9

Statement of the Problem.....10

Hypothesis.....10

Scope & Limitation.....11

Significance of the Study.....11

Definition of terms.....12

Chapter 2 Review of Literature

Conceptual Literature.....13

Related Studies.....17

Chapter 3 Methodology

Research Design.....20

Research Setting.....20

Research Procedure.....21

Statistical Treatment23

Chapter 4 Results and Discussion

Results.....24

Discussion.....25

Chapter 5 Conclusion and Recommendations

Conclusion.....28

Recommendations.....28

Cited References.....29



Appendices

Appendix A (Pictures of specimen).....34
Appendix B (Photo documentation).....35
Appendix C (Raw Data)..... 38
Appendix D (Standard procedure).....46
Appendix E (Curriculum Vitae).....47

