



**DETECTION OF *Salmonella Typhi* in FARMED SHELLFISHES USING
CONVENTIONAL CULTURE METHOD AND POLYMERASE CHAIN
REACTION, AND THEIR ANTIBIOTIC RESISTANCE**

An Undergraduate Research Presented to the
Faculty of Biological Sciences Department
College of Science and Computer Studies
De La Salle University- Dasmariñas
Dasmariñas City, Cavite

In Partial Fulfillment of the Requirements
for the Degree of Bachelor of Science Major in Human Biology

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March 2013



ABSTRACT

A study was performed in order to determine the prevalence of *Salmonella* Typhi and relate its presence in the type of farmed shellfishes (mussels and oysters) and season (hot dry, wet, cool dry) in Cavite City. A total of 30 samples (15 from mussels and 15 from shellfish) were collected from Cavite City during April, June and November. The physico chemical characteristics of water such as salinity, conductivity, temperature, dissolved oxygen and pH were also obtained. When the conventional culture method was performed, a 100% prevalence of *Salmonella spp.* was obtained from all the samples collected in different seasons. Using the PCR method, (*ompC* and *viaB*), a 90% prevalence of *Salmonella spp.* was detected in mussel isolates during the hot dry and wet season but not in dry season. On the other hand, *Salmonella spp.* isolated from oysters were prevalent during the hot dry and cool dry season and 70% prevalent in wet season. However, no *Salmonella* Typhi was observed in all of the samples. In determining the association between *Salmonella spp.* and predictor variables, the type of shellfish ($P = 0.04$) and season ($P = 0.05$) were found to be good predictors. Oysters obtained during hot dry season yield a favorable growth of *Salmonella spp.* In the antimicrobial susceptibility testing, 37% of bacterial isolates from the shellfishes were considered as multidrug resistant bacteria since it has shown resistance to the all of the antibiotics (ampicillin, chloramphenicol, streptomycin, and tetracycline).

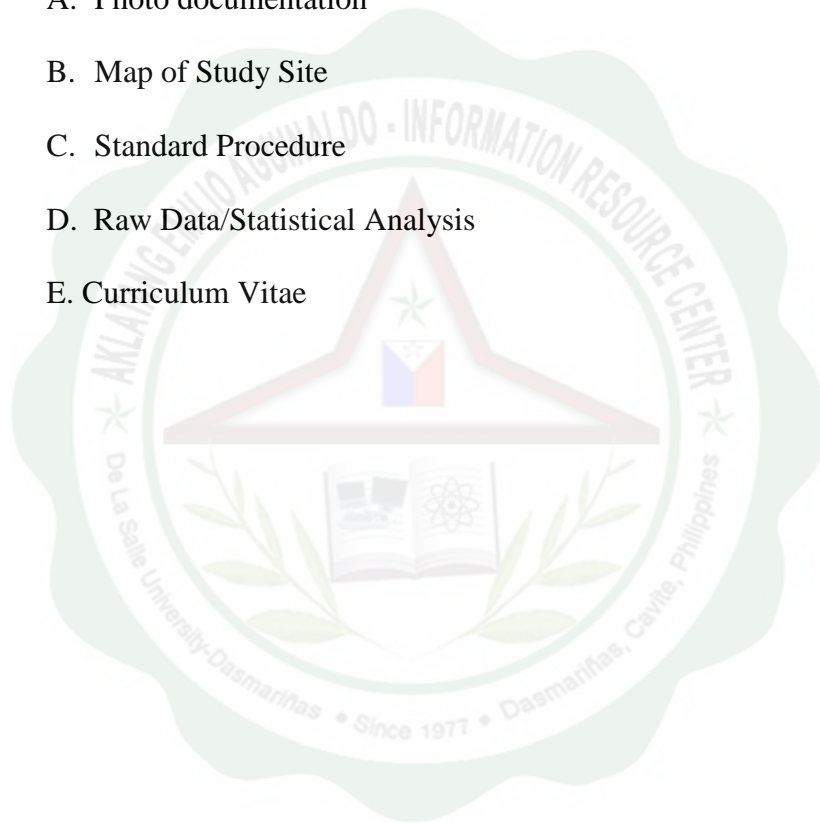


TABLE OF CONTENTS

Title Page	1
Approval Sheet	2
Acknowledgments	3
Abstract	4
Table of Contents	5
List of Figures	7
List of Tables	8
CHAPTER 1 INTRODUCTION	10
1.1 Background of the Study	10
1.2 Conceptual Framework	13
1.3 Statement of the Problem	14
1.4 Scope and Limitations	15
1.5 Significance of the Study	15
1.6 Definition of Terms	17
CHAPTER 2 REVIEW OF RELATED LITERATURE	18
CHAPTER 3 METHODOLOGY	30
3.1 Research Design	30
3.2 Research Setting	30
3.3 Research Procedure	30
3.4 Data Gathering and Statistical Analysis	34



CHAPTER 4 RESULTS AND DISCUSSION	35
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	44
Cited References	46
Appendices	53
A. Photo documentation	54
B. Map of Study Site	60
C. Standard Procedure	61
D. Raw Data/Statistical Analysis	79
E. Curriculum Vitae	86





LIST OF FIGURES

Figure

1 - Shellfish samples washed in running water.....	53
2 - Twenty-Four hour broth culture.....	53
3- Streak plate method.....	55
4- Culturable <i>Salmonella spp.</i> growth detected in SSA.....	55
5 - Nuclei Lysis solution was added.....	56
6 - PCR mastermix was prepared in microcentrifuge tubes.....	56
7 - Mixture was placed into the loading well.....	57
8- Gel stained with Ethidium Bromide.....	58
9 - Antimicrobial disks in Mueller Hinton Agar.....	59
10 - Site maps: Dasmariñas City , Cavite City and Bacoor City.....	60



LIST OF TABLES

Table

1- Prevalence of the total <i>Salmonella</i> spp and <i>Salmonella</i> Typhi isolated in farmed shellfishes from April, June and November 2012.....	35
2-Physical characteristics of sampling site from April to November 2012.....	37
3-Antimicrobial Resistance Patterns of <i>Salmonella</i> spp. from farmed shellfishes.....	39
4- Multidrug Resistance of the Isolates (<i>Salminella</i> spp.) in mussels and oyster.....	40
5- Presence of culturable <i>Salmonella</i> spp. in April Samples.....	78
6- Presence of culturable <i>Salmonella</i> spp. in June Samples.....	78
7- Presence of culturable <i>Salmonella</i> spp. in November Samples.....	79
8- Presence of <i>ompC</i> gene and <i>viaB</i> gene in April Isolates.....	79
9- Presence of <i>ompC</i> gene and <i>viaB</i> gene in June Isolates.....	80
10 - Presence of <i>ompC</i> gene and <i>viaB</i> gene in November Isolates.....	80
11- Physical Parameters of Sampling Site for April 2012.....	81



12- Physical Parameters of Sampling Site for June 2012.....	81
13- Physical Parameters of Sampling Site for November 2012.....	82
14- Salinity vs. Season.....	82
15- Conductivity vs. Season.....	82
16- TDS vs. Season.....	83
17- Temperature vs. Season.....	83
18- pH vs. Season.....	83
19- Presence of <i>Salmonella spp.</i> vs. predictor variables.....	84
20 - Good predictor variables.....	84
21 - Zones of inhibition in mm of <i>Salmonella spp.</i> isolates from mussel.....	85
22- Zones of inhibition in mm of <i>Salmonella spp.</i> isolates from oysters.....	85