PREVALENCE AND ANTIBIOTIC SUSCEPTIBILITY OF Vibrio spp. AND Vibrio cholerae IN COCKLES (Anadara granosa) AT THREE RETAIL LEVELS IN KUALA PILAH, NEGERI SEMBILAN.

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JANUARY 2014
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Date: JANUARY 2014
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>viii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ix</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>x</td>
</tr>
</tbody>
</table>

## CHAPTER 1: INTRODUCTION

1.1 Background Study 1
1.2 Problem Statement 6
1.3 Significance of the Study 6
1.4 Objectives of the Study 7

## CHAPTER 2: LITERATURE REVIEW

2.1 Food safety 8
2.2 Foodborne Illness 10
2.3 Cockles (*Anadara granosa*) 11
2.4 *Vibrio cholerae*
   2.4.1 Morphology 12
   2.4.2 Taxonomy 12
   2.4.3 Physiology 13
   2.4.4 Pathogenicity and Virulence Factor 14
2.5 Isolation and characterization of *Vibrio* spp. 14
   2.5.1 Most-Probable Number method (MPN method) 14
   2.5.2 Polymerase Chain Reaction method (PCR method) 15
   2.5.3 MPN-PCR method 16
2.6 Antibiotic susceptibility of *Vibrio* spp.
   2.6.1 List of Antibiotics for *Vibrio* spp. 18
   2.6.2 The Disc Diffusion Method 19

## CHAPTER 3: METHODOLOGY

3.1 Materials 20
   3.1.1 Raw materials (samples) 20
   3.1.2 Chemicals 20
   3.1.3 Apparatus 21
3.2 Methods 21
   3.2.1 Sample collection 21
   3.2.2 Sample preparation 22
3.2.3 Enumeration by using MPN-PCR 23
3.2.4 Preparation of genomic DNA 23
3.2.5 Genomic DNA amplification by PCR 24
3.2.6 Culturing method 25
3.2.7 Disk diffusion method 26
3.2.8 Flowchart of overall methods 27

CHAPTER 4: RESULTS AND DISCUSSION 37
4.1 Enumeration of Vibrio spp. in cockles by MPN method 28
4.2 Pre screening of Vibrio spp. on selective media 29
4.3 Molecular characterization of Vibrio spp. and Vibrio cholerae 31
4.4 Antibiotic susceptibility test 34

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS 37

CITED REFERENCES 40
APPENDICES 47
CURRICULUM VITAE 55
ABSTRACT

PREVALENCE AND ANTIBIOTIC SUSCEPTIBILITY OF *Vibrio* spp. AND *Vibrio cholerae* IN COCKLES (*Anadara granosa*) AT THREE RETAIL LEVELS IN KUALA, NEGERISEMBILAN

People nowadays have very little consideration on food safety and practice poor eating habits such as eating raw or undercooked seafood. There is a presence of microorganism that is said to be opportunistic pathogens such as in cockles, there is a presence of *Vibrio* spp. which can cause vibriosis. This study is to detect the presence of *V*. spp. and *V. cholerae* in cockles at three different retails in Kuala Pilah, Negeri Sembilan and the antibiotic susceptibility of that species. The findings of the study show that there is more than $2.4 \times 10^{10}$ MPN/g in 10 g of cockles from all three places. The result obtained by using Most Probable Number (MPN) method. Then in specifically determining of *V. cholerae*, night market cockles were found to have highest rate of contamination with 71.43%. In order to clarify the presence of *V*. spp. and *V. cholerae* in cockles, Polymerase Chain Reaction (PCR) and visualization by Gel Electrophoresis had been done, proving that the presence of both species were positive. Lastly, for antibiotic test, the Multiple Antibiotic Resistance (MAR) and Disk Diffusion method were used and seven out of 14 types of antibiotics were found to be resistance since the MAR index was between 0.2 to 0.5. Bacitracin, Vancomycin, Furazididone, Tetracycline and Erythromycin are highly resistance to *Vibrio* spp. where Bacitracin is the best antibiotic to treat that species.