

## CHAPTER 6: CONCLUSION

Overall, *E. coli* in aquatic environments of Bachok, Kelantan were genetically diverse and heterogeneous. Even though only one pathogenic strain was detected in this study, it is recommended that prevention of waterborne diseases to be highlighted in health education and health promotion in Bachok to avoid waterborne disease caused by the pathogenic strains.

The finding in the study indicates that rep-PCR is a promising molecular method for determining the genomic diversity of environmental *E. coli* strains. However the small sample size was a drawback since the data could not represent the exact diversity of *E. coli* in the selected environment. Antimicrobial susceptibility test was not a useful marker in this study compared to molecular method as majority of *E. coli* were susceptible strains. In conclusion, the abundance of *E. coli* in aquatic environments in Bachok, Kelantan indicates that understanding the dynamics of the microbes in the environment is important to improve the bacterial water quality and avoid threats to public health from contaminated water.