

## ABSTRACT

Ludyasari, Ayu. 2014. The Annealing Temperature Effect on the Success of the Programme Against PCR Amplification of DNA Finger Shrimp (*Metapenaeus elegans* De Man, 1907) Segara Anakan, Cilacap, Central Java. Biology Lecturer: Dr. RetnoSusilowati, M.Sc. and Religion Lecturer: Dr. H. MunirulAbidin, M.Ag.

Keywords: Shrimp Finger (*Metapenaeus elegans*), Annealing, PCR

The Ecosystem decline occurring in Segara Anakan, Cilacap, Central Java, has resulted in the problem of the decline in the number of shrimp production Finger (*Metapenaeus elegans*). Decreasing the amount of shrimp production Finger (*Metapenaeus elegans*) will also affect the genetic diversity that are considered important because of genetic resources is an important key for an individual to survive to the next generation. Information on genetic diversity is used as a basis for selection, namely DNA genotyping. DNA analysis further helped by the PCR amplification method that utilizes DNA replication. But the success of PCR amplification is influenced by the optimal annealing temperature in the annealing process. Therefore, this study aimed to determine the effect of annealing temperature in the PCR program to successful DNA amplification Shrimp Finger (*Metapenaeus elegans*).

This research is a descriptive study. The sample used in this study was 5 individual finger shrimp (*Metapenaeus elegans*) road legs and tail section were taken from the catch of Segara Anakan, Cilacap, Central Java. The sample is extracted and amplified by PCR. Parameters of the study is the purity of DNA in absorbance  $A_{260/280}$ , the size of the total DNA (bp) extraction results, the size of mtDNA (bp) PCR results.

Based on the results of the study indicate that the annealing temperature affects the success of PCR amplification as temperature 44°C. The influence of the purity of the DNA shown in absorbance  $A_{260/280}$  ranged from 1.65 to 2.07 g / ml and the results of electrophoresis in the form of DNA bands Finger total shrimp (*Metapenaeus elegans*) were obtained measuring tape 12000 bp and 950 bp sized single mtDNA and at least smear formed.