

SUMMARY

Barnacles are one of the sessile crustaceans where they live attached like parasites to an object or living thing. *Amphibalanus amphitrite* is one of the most widespread and studied barnacle species in tropical and subtropical waters, known for its adaptability to varying salinity and habitat conditions. Despite its global significance, little is known about the morphological variation of *A. amphitrite* in Central Java, particularly in Brebes and Kebumen. The aim of this study was to determine the morphological characteristics and evaluate the evolutionary relationships of *A. amphitrite* from different mangrove habitats.

This research used a survey method in the mangrove habitats of Brebes and Kebumen. Sampel were collected using purposive sampling technique by Romanus Edy Prabowo. Morphology of *Amphibalanus amphitrite* was done by observing parts of *A. amphitrite* under a microscope and phylogeny was done by analyzing kinship using PAST4 software.

There are differences in the morphological characteristics of the hard and soft parts between the two samples studied. This indicates adaptation to different environmental conditions. Based on the similarity of characteristics, *Amphibalanus amphitrite* Brebes (AB4) and *Amphibalanus amphitrite* Brebes (AB1) are very closely related. While the most distant kinship is *Amphibalanus amphitrite* Brebes (AB3).

Key word: *Amphibalanus amphitrite*, barnacles, morphology, phylogeny.

