

## ABSTRACT

SITI AISYAH. 2023. **STUDY OF THE ASSOCIATION OF CRABS WITH MANGROVES IN KAMAL DISTRICT, BANGKALAN REGENCY, MADURA AS A SUPPLEMENT TO BIOLOGY TEACHING MATERIALS.** *Biology Education Departement. Faculty of Teacher Training and Education. Siliwangi University. Tasikmalaya.*

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*Kamal District has a mangrove ecosystem area that is used by local communities as a place for livelihoods for marine life, one of which is crabs. Crabs use mangroves as shelters, spawning grounds, and foraging places so that the existence of mangroves plays an important role in crab life. Therefore, this study aims to determine the association of crabs with mangroves in Kamal District, Bangkalan Regency, Madura. This research uses quantitative methods with the type of survey research and the technique used is purposive sampling. There are three stations used, which are taken based on the intensity of human activity at the station. Station I is in a location that is relatively far from activities and residential areas. Then, station II is in the area of population activity, station III is in the pond area. The sampling method uses ladder transect. Each station consists of 5 plots with a size of 10x10 meters each plot and a distance between plots of 10 meters. Based on the results of the study, mangrove data were obtained which were classified into 4 families, 4 genera and 7 species. While crabs consist of 2 families, 4 genera and 4 species. The results of  $\chi^2$  data analysis are that there are 6 positive associations, 2 negative associations and 22 no combinations. Then, the highest association in the combination of *Rhizophora apiculata* species with *Scylla paramamosain* with a value of  $\chi^2$  count of 9.23 and a value of the degree of association is -1.00, so the association is negative. The negative association because crab species and mangroves are not present simultaneously due to having different environmental needs causes one of them to be depressed thus implying an adverse interaction. The conclusion of this study is that there is an association between crabs and mangroves in Kamal District.*

*Keywords : Crab, Mangrove, Association of Crab with Mangrove, Teaching Material Supplement.*