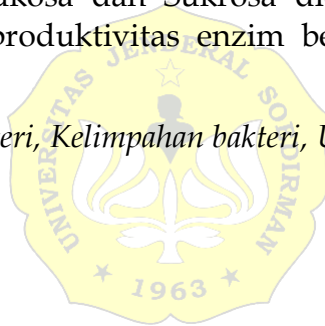


ABSTRAK

Udang vaname (*Litopenaeus vannamei*) merupakan salah satu jenis udang unggulan yang banyak dibudayakan secara intensif di Indonesia. Budidaya intensif pada udang vaname memiliki beberapa kendala, salah satunya disebabkan oleh serangan bakteri patogen. Penelitian ini bertujuan untuk mengetahui kelimpahan dan karakteristik bakteri yang ditemukan pada hepatopankreas udang vaname yang mati pada tambak intensif di Desa Klatakan, Situbondo. Metode pengambilan sampel yang digunakan dalam penelitian ini yaitu *purposive random sampling*. Isolasi bakteri dilakukan dengan metode *spread plate* pada media TSA. Selanjutnya diinkubasi pada suhu 37°C selama 24 jam. Kelimpahan bakteri dihitung menggunakan metode TPC (*Total Plate Count*) dan karakteristik bakteri yang diamati meliputi morfologi koloni dan uji biokimia. Uji biokimia yang dilakukan meliputi uji Gram, uji katalase, uji oksidase, uji fermentasi karbohidrat, dan uji produktivitas enzim. Hasil penelitian ini menunjukkan nilai kelimpahan bakteri berkisar 26×10^7 CFU/gr hingga 76×10^8 CFU/gr, nilai tersebut melebihi standar baku mutu yaitu 5×10^5 CFU/gr. Hasil uji biokimia didominasi hasil negatif pada pewarnaan Gram dan uji Gram KOH 3%, reaksi positif pada uji katalase dan uji oksidase. Hasil uji fermentasi karbohidrat Glukosa dan Sukrosa didominasi positif sedangkan laktosa negatif. Hasil uji produktivitas enzim berupa amilase dan protease didominasi hasil positif.

Kata kunci: Karakteristik bakteri, Kelimpahan bakteri, Udang vaname, Uji Biokimia



ABSTRACT

Vaname shrimp (*Litopenaeus vannamei*) is one of the leading shrimp species that is intensively cultivated in Indonesia. Intensive cultivation of vaname shrimp has several obstacles, one of which is caused by the attack of pathogenic bacteria. This study aims to determine the abundance and characteristics of bacteria found in the hepatopancreas of vaname shrimp that died in intensive ponds in Klatakan Village, Situbondo. The sampling method used in this study was purposive random sampling. Bacterial isolation was done by spread plate method on TSA media. Furthermore, it was incubated at 37°C for 24 hours. Bacterial abundance was calculated using the TPC (*Total Plate Count*) method and bacterial characteristics observed included colony morphology and biochemical tests. Biochemical tests performed include Gram test, catalase test, oxidase test, carbohydrate fermentation test, and enzyme productivity test. The results of this study showed the value of bacterial abundance ranged from 26×10^7 CFU/gr to 76×10^8 CFU/gr, the value exceeded the quality standard of 5×10^5 CFU/gr. The results of biochemical tests were dominated by negative results in Gram staining and 3% KOH Gram test, positive reactions in catalase test and oxidase test. Glucose and sucrose carbohydrate fermentation test results were predominantly positive while lactose was negative. The results of enzyme productivity tests in the form of amylase and protease are dominated by positive results.

Keywords: Bacterial abundance, Bacterial characteristics, Biochemical test, Vaname shrimp.

