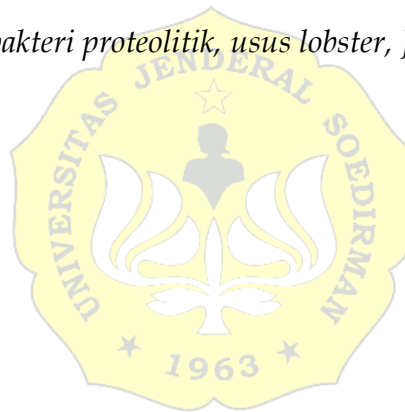


ABSTRAK

Lobster mutiara (*Panulirus ornatus*) merupakan komoditas laut bernilai ekonomi tinggi yang mengandung berbagai jenis bakteri di saluran pencernaannya. Penelitian ini dilakukan di Tempat Pelelangan Ikan (TPI) Demaan, Jepara, dengan tujuan untuk mengetahui kelimpahan bakteri, karakteristik dan persentase bakteri proteolitik, serta kelimpahan bakteri proteolitik pada usus lobster mutiara. Metode yang digunakan adalah deskriptif eksploratif melalui pengambilan sampel usus lobster, isolasi dan karakterisasi morfologi koloni, uji aktivitas enzim, serta identifikasi biokimia dan numerik. Data yang dikumpulkan meliputi jumlah total bakteri, jenis isolat dominan, indeks aktivitas proteolitik, serta persentase dan kelimpahan bakteri proteolitik. Hasil penelitian menunjukkan bahwa kelimpahan total bakteri mencapai $7,7 \times 10^5$ CFU/g, dengan dua isolat utama yang menunjukkan indeks proteolitik *Bacillus subtilis* 1,1 dan *Bacillus licheniformis* 1,4. Kelimpahan bakteri proteolitik tercatat sebesar $2,9 \times 10^5$ CFU/g dengan persentase 38,9%. Hal ini menunjukkan bahwa usus lobster menyediakan lingkungan yang mendukung keberadaan bakteri pemecah protein yang berperan penting dalam proses pencernaan.

Kata Kunci: Lobster mutiara, bakteri proteolitik, usus lobster, Jepara



ABSTRACT

Pearl lobster (*Panulirus ornatus*) is a marine commodity of high economic value that contains various types of bacteria in its digestive tract. This research was conducted at the Demaan Fish Landing Site, Jepara, with the aim of determining the abundance of bacteria, the characteristics and percentage of proteolytic bacteria, as well as the abundance of proteolytic bacteria in the intestine of pearl lobster. The method used was descriptive exploratory, through sampling of lobster intestines, isolation and morphological characterization of colonies, enzyme activity testing, and biochemical and numerical identification. The collected data included total bacterial count, types of dominant isolates, proteolytic activity index, as well as the percentage and abundance of proteolytic bacteria. The results showed that the total bacterial abundance reached $7,7 \times 10^5$ CFU/g, with two main isolates showing proteolytic indices *Bacillus subtilis* with 1,1 and *Bacillus licheniformis* with 1,4. The abundance of proteolytic bacteria was recorded at $2,9 \times 10^5$ CFU/g with a percentage of 38,9%. This indicates that the lobster intestine provides an environment that supports the presence of protein-degrading bacteria which play an important role in the digestive process.

Keywords: Pearl lobster, proteolytic bacteria, lobster intestine, Jepara

