

## ABSTRAK

Udang Vaname merupakan salah satu komoditas ekonomi penting di Indonesia yang dibudidayakan secara intensif. Akan tetapi, budidaya intensif pada udang vaname menimbulkan berbagai permasalahan termasuk salah satunya serangan bakteri *Vibrio*. Penelitian ini dilakukan dengan tujuan untuk mengetahui jenis spesies dan proporsi bakteri genus *vibrio* pada sedimen tambak udang vaname (*L. vannamei*) di Desa Bunton, Kecamatan Adipala, Cilacap. Sampel sedimen yang digunakan dalam penelitian ini berasal dari 3 unit kolam tambak, satu kolam tandon dan satu kolam treatment. Bakteri diisolasi dari sampel sedimen dengan menggunakan media *Thiosulphate Citrate Bile Sucrose Agar* (TCBS Agar). Karakter morfologi koloni dari bakteri yang tumbuh diamati dan dicatat. Sampel DNA diisolasi dari sampel bakteri dan gen 16s rDNA diamplifikasi menggunakan primer spesifik. Isolat bakteri dikelompokkan berdasarkan pola potongan gen 16s rDNA menggunakan enzim *Rsal*. Hasil PCR dari setiap kelompok disekuensing dan hasilnya digunakan untuk identifikasi bakteri menggunakan analisis BLAST. Hasil menunjukkan terdapat dua spesies *Vibrio* pada sampel sedimen, yaitu *Vibrio metschnikovii* dan *Vibrio alginolyticus*. Proporsi bakteri *Vibrio* spp. paling tinggi ditemukan di sedimen Tambak 8 dengan nilai 81,25%. Bakteri *Vibrio* spp. Tidak ditemukan pada sedimen kolam tandon.

**Kata Kunci :** Udang Vaname (*L. vannamei*); Tambak Udang Desa Bunton; *Vibrio metschnikovii*; *Vibrio alginolyticus*.

## ABSTRACT

Vaname shrimp is one of the important economic commodities in Indonesia which is cultivated intensively. However, intensive cultivation of vaname shrimp causes various problems, including *Vibrio* bacteria attack. This work aimed to identify and to know the proportion of *Vibrio* spp in White leg shrimp ponds (*L. vannamei*) at Bunton Village, Adipala District, Cilacap especially in sediment. Samples were collected from 3 units of ponds, one unit of the reservoir pond, and one unit of the treatment pond. Bacteria was isolated from sediment substrates on *Thiosulphate Citrate Bile Sucrose Agar* (TCBS-A) medium. Morphological characteristics of bacteria were observed and recorded. DNA samples was isolated from bacterial samples, and the 16S rDNA gene was amplified using specific primers. Bacterial isolates were grouped based on 16s rDNA pattern digested using *Rsal* restriction enzyme. A PCR product from each group was sequenced and the sequence comparison with the databases was performed using BLAST analysis. Two bacterial isolates were identified as *Vibrio metschnikovii* and *Vibrio alginolyticus*. The highest proportion of *Vibrio* spp. was found at sediment sample from the pond number 8 (81.25%). The isolates of *Vibrio* were not found at sediment sample from reservoir pond.

**Keywords** : White leg Shrimp (*L. vannamei*); Shrimp Ponds at Bunton Village; *Vibrio metschnikovii*; *Vibrio alginolyticus*.