

INTISARI

Identifikasi *Vibrio* spp dari Tambak Udang di Bantul dan Resistensi terhadap Antibiotik Oksitetrasiklin, Enrofloksasin, dan Eritromisin

Udang vaname (*Litopaneus vannamei*) merupakan salah satu komoditas hasil perikanan unggulan yang memiliki nilai ekonomis tinggi. Kendala yang sering terjadi dalam kegiatan budidaya udang vaname adalah adanya serangan penyakit vibriosis yang disebabkan oleh *Vibrio* spp. Antibiotik digunakan pembudidaya untuk menghentikan perkembangan dan membunuh *Vibrio* spp. Penelitian ini bertujuan untuk mengidentifikasi *Vibrio* spp dari tambak udang di Bantul dan mengetahui efektivitas antibiotik (oksitetrasiklin, enrofloksasin, eritromisin) yang diperbolehkan pemakaiannya di Indonesia berdasarkan Permen-KP No.1 pasal 51 tahun 2019. *Vibrio* spp. diisolasi dari jaringan hepatopankreas udang dan air budidaya udang pada medium selektif *Thiosulfate Citrate Bile Salt Sucrose* (TCBS) agar. Identifikasi bakteri dilakukan dengan molekuler analisis gen 16S rRNA dan uji biokimia. Uji resistensi antibiotik dilakukan dengan metode *disc diffusion* dengan menghitung diameter penghambatan pertumbuhan berdasarkan tabel standar *Clinical and Laboratory Standards Institute* (CLSI). Hasil identifikasi didapatkan spesies *Vibrio parahaemolyticus*, *Vibrio alginolyticus*, dan *Vibrio azureus*. Uji resistensi antibiotik menunjukkan seluruh *Vibrio* spp yang diuji menunjukkan susceptible terhadap eritromisin, resisten terhadap oksitetrasiklin dan enrofloksasin.

Kata kunci : enrofloksasin, eritromisin, oksitetrasiklin, resistensi, udang, *Vibrio*

ABSTRACT

Identification of *Vibrio* spp from Shrimp Farms in Bantul and Resistance to Oxytetracycline, Enrofloxacin, and Erythromycin Antibiotics

Vannamei shrimp (*Litopaneus vannamei*) is one of the leading fishery commodities that has high economic value. One of the constraints in vaname shrimp cultivation is the vibriosis infectious disease caused by *Vibrio* spp. Antibiotics are used by farmers to stop the growth and kill *Vibrio* spp. This study aims to identify *Vibrio* spp from shrimp ponds in Bantul and determine the susceptibility of antibiotics (oxytetracycline, enrofloxacin, erythromycin) which are allowed to be used in Indonesia based on Permen-KP No.1 article 51 of 2019. *Vibrio* spp. were isolated from shrimp hepatopancreas tissue and shrimp culture water on selective medium Thiosulfate Citrate Bile Salt Sucrose (TCBS) agar. Bacterial identification was carried out by molecular analysis of the 16S rRNA gene and biochemical tests. Antibiotic resistance test was carried out using the disc diffusion method by calculating the diameter of growth inhibition based on the Clinical and Laboratory Standards Institute (CLSI) standard table. The identification showed that isolates were close related to *Vibrio parahaemolyticus*, *Vibrio alginolyticus*, and *Vibrio azureus*. Antibiotic resistance test showed that all tested *Vibrio* spp. showed susceptibility to erythromycin but resistance to oxytetracycline and enrofloxacin.

Keywords : enrofloxacin, erythromycin, oxytetracycline, resistance, shrimp, *Vibrio*