

ABSTRAK

PERTUMBUHAN UDANG VANAME (*Litopenaeus vannamei* Boone, 1931) PADA INLET DENGAN KERAPATAN MANGROVE YANG BERBEDA DI HUTAN PENDIDIKAN MANGROVE UNILA DESA MARGASARI KECAMATAN LABUHAN MARINGGAI KABUPATEN LAMPUNG TIMUR

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Desa Margasari merupakan salah satu daerah yang sedang mengembangkan potensi sektor budidaya udang vaname dan reboisasi hutan mangrove dibagian pesisir. Perbedaan kerapatan hutan mangrove pada jalur inlet diduga mampu mempengaruhi pertumbuhan udang vaname. Penelitian ini bertujuan guna mengkaji pengaruh yang diberikan kerapatan hutan mangrove yang berbeda di jalur inlet terhadap pertumbuhan udang vaname. Penelitian ini dilakukan di Hutan Pendidikan Unila, Desa Margasari pada bulan Januari - Juli 2019 dengan dua stasiun, yakni Stasiun 1 dengan kerapatan 1933 pohon/ha dan Stasiun 2 dengan kerapatan 1467 pohon/ha. Penelitian dilakukan dengan identifikasi jenis dan kerapatan mangrove dan budidaya udang vaname menggunakan keramba tancap. Seluruh parameter penelitian berupa pertumbuhan berat udang, kerapatan mangrove, tutupan kanopi, produktivitas primer, dan kualitas air dianalisis menggunakan metode *Principal Component Analysis* (PCA). Hasil penelitian menunjukkan bahwa perbedaan pertumbuhan udang vaname terjadi pada 10 hari pemeliharaan, dimana pertumbuhan berat mutlak udang vaname di Stasiun 1 sebesar $0,77 \pm 0,21$ gram dan Stasiun 2 sebesar $0,32 \pm 0,12$ gram. Korelasi antar parameter terbagi menjadi 3 variabel, yakni variabel 1 (amonia; oksigen terlarut; nitrit; tutupan kanopi; pH; pertumbuhan berat mutlak udang vaname), variabel 2 (kerapatan mangrove; salinitas), dan variabel 3 (suhu; produktivitas primer) yang menunjukkan bahwa pertumbuhan udang vaname tidak dipengaruhi oleh jalur inlet dengan kerapatan mangrove yang berbeda.

Kata kunci: korelasi, pertumbuhan udang vaname, kerapatan mangrove, *Principal Component Analysis*

ABSTRACT

VANAME SHRIMP GROWTH (*Litopenaeus vannamei* Boone, 1931) ON INLET CANAL WITH DIFFERENT MANGROVE DIVERSITY IN MANGROVE EDUCATION FOREST UNILA MARGASARI VILLAGE LABUHAN MARINGGAI DISTRICT EAST LAMPUNG REGENCY

By

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Margasari Village is one of area that is currently developing vaname shrimp sector farming while implementing mangrove forests reforestation on the coast. The difference in the mangrove forest density in the inlet canal might effect vaname shrimp growth. This study aims to examine the effect between the different mangrove forest densities on inlet canal to vaname shrimp growth. This research was held at Unila Education Forest, Margasari Village in January - July 2019 with two stations, namely Station 1 with a density of 1933 trees / ha and Station 2 with a density of 1467 trees / ha. Research was conducted with identification type and mangrove density and cultivating shrimp vaname in pin cage. Research parameters such as shrimp absolute growth weight, mangrove density, canopy cover, primary productivity, and water quality were analyzed using Principal Component Analysis (PCA) method. The results showed that the difference in vaname shrimp growth occurred at 10 days of culture, whrere the vaname shrimp absolute weight growth at Station 1 was 0.77 ± 0.21 gram and Station 2 was 0.32 ± 0.12 gram. The correlation across parameter divided into 3 variables, namely variable 1 (ammonia; dissolved oxygen; nitrites; canopy cover; pH; vaname shrimp absolute growth weight), variable 2 (mangrove density; salinity), and variable 3 (temperature; primary productivity) indicating that growth of vaname shrimp did not give direct effect by inlet canal with different mangrove density.

Keywords: correlation, vaname shrimp growth, mangrove density, Principal Component Analysis