

## ABSTRAK

Udang *Vannamei* (*Litopenaeus vannamei*) merupakan jenis produk perikanan andalan ekspor yang tinggi protein dan lemak. Umumnya kualitas mutu udang *Vannamei* akan mengalami pembusukan atau penurunan kualitas seiring lamanya waktu penyimpanan. Pembusukan ini terjadi karena aktivitas bakteri dan oksidasi. Oleh sebab itu, dilakukan pengawetan menggunakan metode pembekuan dan penggunaan formalin sintetis untuk memperpanjang waktu simpan udang. Namun, metode ini dinilai kurang ekonomis dan sangat berbahaya bagi masyarakat. Berdasarkan hal itu, digunakan pengawet alami berbahan dasar alam yaitu daun Kateng mangrove (*Avicennia lanata*) karena mengandung senyawa yang dapat membunuh dan menghambat pertumbuhan bakteri. Pemberian perlakuan ekstrak air *A. lanata* konsentrasi 0, 25, 50, 75 dan 100% (b/v) dengan lama waktu simpan 2 dan 4 jam dilakukan untuk mengetahui pengaruh konsentrasi dan lama waktu simpan udang terhadap kualitas mutu daging segar *Vannamei*. Penelitian ini bersifat experimental dan menggunakan rancangan acak lengkap dua arah (Two-Way ANOVA) dengan parameter uji meliputi populasi total bakteri, produksi gas H<sub>2</sub>S, tingkat keasaman (pH) dan kandungan trimetilamina (TMA). Hasil penelitian ini, menunjukkan pemberian berbagai konsentrasi ekstrak air *A. lanata* dengan lama waktu simpan berbeda berpengaruh signifikan terhadap kualitas mutu daging segar udang *Vannamei* (*L. vannamei*).

**Kata Kunci:** Bakteri, Ekstrak *Avicennia lanata*, *Litopenaeus vannamei*, Pengawet Alami, Mikrobiologi.

## **ABSTRACT**

*Vannamei shrimp (Litopenaeus vannamei) is a type of export mainstay fishery product that is high in protein and fat. Generally, the quality of Vannamei shrimp will experience spoilage or a decrease in quality with the length of storage time. This decay occurs due to bacterial activity and oxidation. Therefore, preservation is carried out using the freezing method and the use of synthetic formalin to extend the shelf life of the shrimp. However, this method is considered less economical and very dangerous for the community. Based on this, a natural preservative made from nature, namely mangrove Kateng leaves (Avicennia lanata), is used because it contains compounds that can kill and inhibit bacterial growth. The treatment of A. lanata water extract with a concentration of 0, 25, 50, 75, and 100% (w/v) with a shelf life of 2 and 4 hours was carried out to determine the effect of concentration and shelf life on the quality of fresh Vannamei meat. This research is experimental and uses a two-way complete randomized design (Two-Way ANOVA) with test parameters including total bacterial population, H<sub>2</sub>S gas production, acidity level (pH) and trimethylamine (TMA) content. The results of this study showed that the provision of various concentrations of A. lanata water extract with different lengths of storage time had a significant effect on the quality of fresh meat quality of Vannamei shrimp (L. vannamei).*

*Keywords: Bacteria, Avicennia lanata extract, Litopenaeus vannamei, Preservation, Microbiology.*