

ABSTRAK

Lobster diketahui organisme yang mengeluarkan suara. Temperatur perairan berhubungan dengan behavior lobster. Perubahan temperatur air memiliki dampak potensial pada perilaku lobster *Panulirus homarus*. Tujuan dari penelitian ini adalah mengetahui karakteristik suara dan pengaruh temperatur terhadap produktivitas suara *P.homarus*. Penelitian metode observasi ini menggunakan sistem akustik pasif skala laboratorium. Pengambilan data dilakukan sebelum, saat, dan sesudah makan, pada kisaran temperatur yang berbeda : 23-25°C, 26-28°C, dan 29-31°C. Karakteristik suara *P.homarus* yaitu *slow rattel*, *squeaking*, dan *popping*. Durasi suara *squeaking* lebih pendek di banding suara *slow rattel* dan lebih panjang dibanding suara *popping* Frekuensi suara *slow rattel* lebih kecil dibandingkan suara *popping* dan *squeaking*. Intesitas suara tidak berbeda antar jenis suaranya. Pengaruh perubahan temperatur pada *P.homarus* menghasilkan temperatur antara 23-25 °C (durasi 59,3 ms, frekuensi 4016 Hz dan intensitas 79,6 dB); 26-28 °C (durasi 56,6 ms, frekuensi 4355 Hz dan intensitas 79,4 dB) ; dan 29-31 °C (durasi 58,2 ms, frekuensi 4338 Hz dan intensitas 78,7 dB). Berdasarkan uji *Two Way Anova*, durasi dan frekuensi terhadap perubahan temperatur tidak berbeda. Namun intensitas berbeda (<0,05) pada sebelum waktu makan.

Kata kunci : Bioakustik, Temperatur, *Panulirus homarus*, Karakteristik suara

ABSTRACT

Lobster known organisms that emit sound. The temperature of the waters associated with the behavior of lobster. Changes in water temperature have a potential impact on the behavior of the lobsters *Panulirus homarus*. The purpose of this research is to know the characteristics of the voice and influence of temperature to productivity sound *P. homarus*. The research of this observation method uses a laboratory scale passive acoustic system. Retrieval of data is carried out before, during, and after meals, at different temperature ranges : 23-25°C ; 26-28°C ; and 29-31°C. Characteristics of *P.homarus* voice are slow rattel, squeaking, and popping. The duration of sound squeaking is shorter than the sound of slow rattel and longer than the sound of popping. The frequency of the sound of slow rattel is smaller than the sound of popping and squeaking. Sound intensity does not differ between the types of sounds. Influence of temperature change on *P. homarus* produces a temperature between 23-25 °C (duration 59.3 ms, frequency 4016 Hz, and intensity of 79.6 dB); 26-28 °C (duration 56.6 ms, frequency 4355 Hz and intensity of 79.4 dB); and 29-31 °C (duration 58.2 ms, frequency 4338 Hz and intensity of 78.7 dB). Based on test two way Anova, duration and frequency to changes in temperature is no different. But the intensity of the different (< 0.05) on before meal time.

Keywords Bioacoustic, Temperature, *Panulirus homarus*, Sound characteristics