

Bela Riskiyanti Putri. 190351100069. Kajian Stok Rajungan (*Portunus pelagicus*) Berdasarkan Hubungan Lebar Karapas, Berat Tubuh Dan Mortalitas Di Perairan Polagan Kabupaten Pamekasan Di Bawah Bimbingan **Prof. Dr. Ir. Muhammad Zainuri, M. Sc.**

ABSTRAK

Rajungan (*Portunus pelagicus*) merupakan salah satu komoditas dari sektor kelautan yang bernilai ekonomis tinggi. Tingginya nilai ekonomis rajungan akan mendorong meningkatnya aktivitas penangkapan terhadap stok rajungan di alam yang dapat menyebabkan terjadinya *overfishing*. Oleh karena itu perlu adanya upaya, metode atau kajian untuk tetap mempertahankan stok rajungan di alam. Penelitian ini bertujuan mengkaji stok rajungan (*Portunus pelagicus*) di perairan Polagan Kabupaten Pamekasan. Penelitian ini meliputi laju pertumbuhan, laju mortalitas dan eksploitasi, dan hubungannya lebar karapas dan berat tubuh. Penelitian ini dilakukan pada bulan September 2022 – Oktober 2022. Pengambilan sampel dilakukan sebanyak empat kali, yaitu pada pengambilan sampel pertama tanggal 04 September 2022, sampel kedua 18 September 2022, sampel ketiga 02 Oktober 2022, sampel keempat / terakhir pada tanggal 16 Oktober 2022. Alat tangkap yang digunakan untuk menangkap rajungan di perairan Polagan berupa jaring insang (*gillnet*). Hasil penelitian memperoleh rajungan jantan sebanyak 420 ekor, dan betina 80 ekor. Ukuran lebar karapas minimum 63,0 mm dan ukuran lebar karapas maksimum 149,4 mm. Laju mortalitas alami (M) rajungan sebesar 3,54, laju mortalitas penangkapan (F) sebesar 7,94, dan laju eksploitasi (E) rajungan sebesar 0,69 atau 69% yang tergolong *overfishing*. Pola pertumbuhan rajungan jantan, betina, dan gabungan di perairan Polagan bersifat alometrik negatif ($b < 3$). Persamaan pola pertumbuhan $L_t = 14,05 [1 - e^{-1,4(t+0,121)}]$.

Kata Kunci : Rajungan (*Portunus pelagicus*); Sebaran Frekuensi Lebar Karapas; Mortalitas; Eksploitasi; Pola Pertumbuhan.

Bela Riskiyanti Purti. 190351100069. Stock Study Of Blue Crab (*Portunus pelagicus*) Based On The Relationship Between Carapace Width, Body Weight, and Mortality in Polagan Waters Pamekasan Regency under the guidance of **Prof. Dr. Ir. Muhammad Zainuri, M. Sc.**

ABSTRACT

Blue swimming crab (*Portunus pelagicus*) is one of the commodities from fisheries sector which has high economic value. The high economic value of blue swimming crab will encourage increased fishing activity for crab stocks which caused overfishing. Therefore, efforts, and studies are needed to maintain crab stocks in waters. This study aims to know the stocks of the blue swimming crab (*Portunus pelagicus*) in Polagan waters, Pamekasan Regency. This research includes growth rate, mortality and exploitation rates, and the relationship between carapace width and body weight. The research was conducted in September 2022 – October 2022. Sampling was carried out four times, namely the first sample on 04 September 2022, the second sample on 18 September 2022, the third sample on 02 October 2022, the fourth/last sample on 16 October 2022. The fishing gear used to catch crabs in Polagan waters is gillnets. The results of the study obtained 420 male crabs and 80 female crabs. The minimum carapace width is 63,0 mm and the maximum carapace width is 149,4 mm. The natural mortality rate (M) of the blue crab was 3,54, the mortality rate (F) was 7,94, and the exploitation rate (E) of the blue crab was 0,69 or 69% which was classified as overfishing. The growth patterns of male, female and combined swimming crabs in Polagan waters were negative allometric ($b < 3$). Growth pattern equation $L_t = 14,05 [1 - e^{-1,4(t+0,121)}]$.

Keywords : Blue swimming crab (*Portunus pelagicus*); Carapace Width Frequency Distribution; Mortality; Exploitation; Growth Rate.