

ABSTRAK

(**Maria Ulfah. 26010122120022.** Aspek Biologi dan Parameter Pertumbuhan Rajungan (*Portunus pelagicus*, Linnaeus 1758) di Perairan Pantai Utara Kota Semarang. **Suradi Wijaya Saputra dan Atika Arifati).**

Aktivitas penangkapan tinggi dan kurangnya selektivitas terhadap hasil tangkapan rajungan akan berimbas pada pertumbuhan dan reproduksi rajungan dan perlu adanya pengelolaan peraturan berkelanjutan untuk menjaga stok sumber daya rajungan yang lestari. Penelitian ini bertujuan untuk mengetahui distribusi ukuran, perkembangan gonad, hubungan lebar karapas dan bobot tubuh, faktor kondisi, ukuran pertama kali tertangkap dan matang gonad, serta parameter pertumbuhan rajungan. Penelitian dilaksanakan pada bulan Agustus 2025 - Januari 2026 di Tambak Lorok, Semarang. Pengambilan sampel menggunakan metode *systematic random sampling*. Sampel rajungan diambil dari hasil tangkapan nelayan di PPI Tambak Lorok. Data yang diperoleh di analisis menggunakan *Microsoft Excel* dan *Software RStudio* (R versi 4.5.2). Hasil penelitian didapatkan total rajungan jantan sebesar 56% (182 ekor); rajungan betina 44% (145 ekor) dari 327 ekor sampel rajungan. Distribusi lebar karapas dan berat tubuh selama penelitian antara 49-126,4 mm dan 7-154 gram. Pola pertumbuhan rajungan alometrik positif dengan nilai b sebesar 3,23 dan 3,13. Distribusi TKG didominasi oleh TKG I dan II dengan presentase IKG tertinggi jantan dan betina 2% dan 16,8%. Fekunditas tertinggi pada bulan Desember yaitu 253.935 butir dan terendah pada bulan Oktober yaitu 179.186 butir. Nilai faktor kondisi berada disekitar nilai 1,0. Nilai L_c rajungan jantan dan betina 83,29 mmCW dan 85,97 mmCW dan nilai L_m pada rajungan jantan dan betina 116,33 mmCW dan 107,79 mmCW. Nilai $L_c < L_m$, mengindikasikan rajungan tertangkap terlebih dahulu sebelum mencapai ukuran matang kelamin bereproduksi. Penangkapan yang dilakukan belum sepenuhnya menerapkan kriteria ukuran layak tangkap sesuai peraturan yang berlaku.

Kata kunci: Biologi, Parameter pertumbuhan, Perairan Semarang, Rajungan

ABSTRACT

(Maria Ulfah. 26010122120022. *Biological Aspects and Growth Parameters of Blue Swimming Crab (Portunus pelagicus, Linnaeus 1758) in the Northern Coastal Waters of Semarang City. Suradi Wijaya Saputra and Atika Arifati).*

The high level of Blue Swimming Crab (BSC) fishing activities and lack of selectivity catches will impact the growth and reproduction of BSC, therefore sustainable regulatory management is needed to maintain BSC resource stocks. This study aims to determine the size distribution, gonadal maturity, the relationship between carapace width and weight, condition factors, first-catch size and gonadal maturity, and growth parameters of BSC. The study was conducted from August 2025 - January 2026 in Tambak Lorok, Semarang. Sampling was performed using the systematic random sampling method. BSC samples were collected from fishermen's catches at the Tambak Lorok Fish Landing Site. The data were analyzed using Microsoft Excel and RStudio software (R version 4.5.2). The results showed that 56% (182 individuals) were male and 44% (145 individuals) were female of the 327 samples. The distribution of carapace width and weight during the study ranged from 49–126,4 mm and 7–154 grams. The growth pattern was positive allometric with b-value 3,23 and 3,13. The Gonado Maturity Stage (GMS) distribution was dominated by GMS I and II, entered the GMS III phase in October with male and female Gonado Somatic Index (GSI) percentages of 2% and 16,8%. The highest fecundity was recorded in December at 253.935 eggs, and the lowest in October at 179.186 eggs. The condition factor value is around 1,0. The Lc values for male and female are 83,29 mmCW and 85,97 mmCW, and the Lm values are 116,33 mmCW and 107,79 mmCW. The value of $L_c < L_m$ indicated that the BSC were caught before reaching reproductive maturity. The fishing practices currently in place do not fully comply with the minimum size criteria for catch as stipulated by applicable regulations.

Keywords: *Biology, Blue swimming crab, Growth parameters, Semarang waters*