RINGKASAN

HAZWAN. Pengaruh Metode Ablasi dan Mutilasi Terhadap Kinerja Pertumbuhan pada Rajungan (*Portunus pelagicus*) Berkelamin Jantan Dibimbing oleh Tri Yulianto dan Okto Rimandi Bakkara.

Permintaan rajungan yang terus meningkat mendorong perlunya teknologi budidaya yang mampu mempercepat proses molting sehingga dapat meningkatkan pertumbuhan dan produktivitas rajungan. Penelitian ini bertujuan untuk menganalisis pengaruh metode ablasi dan mutilasi terhadap kinerja pertumbuhan rajungan berkelamin jantan (*Portunus pelagicus*). Penelitian dilaksanakan pada bulan Februari–Maret 2025 di Balai Benih Ikan (BBI) Pengujan, Kabupaten Bintan, Kepulauan Riau. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL) yang terdiri atas tiga perlakuan, yaitu ablasi tangkai mata kanan, mutilasi capit kanan, dan kontrol tanpa perlakuan, dengan masing-masing tiga ulangan. Rajungan dipelihara selama 40 hari dan diberi pakan ikan rucah sebanyak 15% dari bobot tubuh per hari. Parameter yang diamati meliputi persentase molting, waktu molting, pertumbuhan bobot mutlak, pertumbuhan panjang karapas, efisiensi pemanfaatan pakan, tingkat kelangsungan hidup, serta kualitas air. Data dianalisis menggunakan analisis ragam (ANOVA), sedangkan data kualitas air dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa persentase molting pada seluruh perlakuan mencapai 66,67%. Perlakuan ablasi menghasilkan waktu molting tercepat dengan rata-rata 22 hari, diikuti mutilasi 23 hari, sedangkan kontrol memerlukan rata-rata 34 hari. Pertumbuhan bobot mutlak, pertumbuhan panjang karapas, efisiensi pemanfaatan pakan, dan tingkat kelangsungan hidup cenderung lebih tinggi pada perlakuan ablasi dibandingkan perlakuan mutilasi dan kontrol. Namun, hasil analisis statistik menunjukkan bahwa seluruh parameter pertumbuhan tidak berbeda nyata ($p>0,05$) antarperlakuan. Selama penelitian, kualitas air berada pada kisaran yang sesuai untuk mendukung pertumbuhan dan kelangsungan hidup rajungan. Berdasarkan hasil penelitian dapat disimpulkan bahwa metode ablasi cenderung memberikan respons yang lebih baik dalam mempercepat molting dan meningkatkan pertumbuhan rajungan jantan dibandingkan metode mutilasi, meskipun tidak memberikan pengaruh yang signifikan secara statistik.

Kata kunci: ablasi, mutilasi, molting, *Portunus pelagicus*, pertumbuhan.

SUMMARY

HAZWAN. The Effect of Ablation and Mutilation Methods on the Growth Performance of Male Blue Swimming Crabs (*Portunus pelagicus*). Supervised by Tri Yulianto and Okto Rimandi Bakkara.

The increasing demand for swimming crabs has driven the need for cultivation technologies that can accelerate the molting process, thereby increasing their growth and productivity. This study aims to analyze the effect of ablation and mutilation methods on the growth performance of male swimming crabs (*Portunus pelagicus*) The study was conducted from February to March 2025 at the Pengujan Fish Seed Center (BBI), Bintan Regency, Riau Islands. The study used a Completely Randomized Design (CRD) consisting of three treatments: right eyestalk ablation, right claw mutilation, and a control without treatment, with three replications each. The swimming crabs were reared for 40 days and fed 15% of their body weight in trash fish per day. Observed parameters included molting percentage, molting time, absolute weight growth, carapace length growth, feed utilization efficiency, survival rate, and water quality. Data were analyzed using analysis of variance (ANOVA), while water quality data were analyzed descriptively. The results showed that the molting percentage across all treatments reached 66.67%. The ablation treatment resulted in the fastest molting time with an average of 22 days, followed by mutilation at 23 days, while the control required an average of 34 days. Absolute weight growth, carapace length growth, feed utilization efficiency, and survival rate tended to be higher in the ablation treatment compared to the mutilation treatment and the control. However, statistical analysis showed that all growth parameters were not significantly different ($p>0.05$) between treatments. During the study, water quality was within the appropriate range to support the growth and survival of blue swimming crabs. Based on the results, it can be concluded that the ablation method tends to provide a better response in accelerating molting and increasing the growth of male blue swimming crabs compared to the mutilation method, although it did not have a statistically significant effect.

Keywords: *ablation, mutilation, molting, Portunus pelagicus, growth.*