

RINGKASAN

DELFIDRA PURNAMA. Pengaruh Metode Ablasi dan Mutilasi Terhadap Kinerja Pertumbuhan Rajungan (*Portunus pelagicus*) Berkelamin Betina Dibimbing oleh Tri Yulianto dan Okto Rimandi Bakkara.

Penelitian ini dilatarbelakangi oleh menurunnya populasi rajungan (*Portunus pelagicus*) di alam akibat tingginya tekanan penangkapan, sementara permintaan pasar terus meningkat, sehingga diperlukan pengembangan budidaya rajungan secara berkelanjutan. Salah satu kendala utama dalam budidaya rajungan adalah lambatnya pertumbuhan yang sangat bergantung pada proses molting, sehingga penelitian ini bertujuan untuk mengetahui pengaruh stimulasi molting melalui metode ablasi tangkai mata dan mutilasi capit terhadap kinerja pertumbuhan rajungan betina serta menentukan metode yang paling efektif. Penelitian dilaksanakan pada Februari–Maret 2025 di Balai Benih Ikan Pengujan, Kabupaten Bintan, menggunakan rancangan acak lengkap dengan tiga perlakuan, yaitu ablasi, mutilasi, dan kontrol, masing-masing tiga ulangan, dengan rajungan betina berbobot awal ± 50 g/ekor yang dipelihara selama 40 hari. Parameter yang diamati meliputi persentase dan waktu molting, pertumbuhan bobot mutlak, pertumbuhan panjang karapas, efisiensi pemanfaatan pakan, tingkat kelangsungan hidup, dan kualitas air. Hasil penelitian menunjukkan bahwa persentase molting pada seluruh perlakuan sama, yaitu 66,67%, namun perlakuan ablasi menghasilkan waktu molting tercepat (± 21 hari), pertumbuhan bobot mutlak tertinggi (42,28 g), pertumbuhan panjang karapas terbesar (2,06 cm), serta efisiensi pakan terbaik (9,78%), sedangkan tingkat kelangsungan hidup tertinggi diperoleh pada perlakuan ablasi dan kontrol, dengan kualitas air selama penelitian berada dalam kisaran optimal, sehingga dapat disimpulkan bahwa metode ablasi lebih efektif dalam mempercepat molting dan meningkatkan pertumbuhan rajungan betina, sementara mutilasi capit lebih mendukung kelangsungan hidup.

Kata kunci: Rajungan, Ablasi, Mutilasi, Molting

SUMMARY

DELFIDRA PURNAMA. The Effect of Ablation and Mutilation Methods on the Growth Performance of Female Blue Swimming Crab (*Portunus pelagicus*) Supervised by Tri Yulianto and Okto Rimandi Bakkara.

This research is motivated by the decline in the population of blue swimming crab (*Portunus pelagicus*) in nature due to high fishing pressure, while market demand continues to increase, so that the development of sustainable blue swimming crab cultivation is needed. One of the main obstacles in blue swimming crab cultivation is the slow growth that is highly dependent on the molting process, so this study aims to determine the effect of molting stimulation through the eyestalk ablation and claw mutilation methods on the growth performance of female blue swimming crabs and determine the most effective method. The research was conducted in February–March 2025 at the Pengujan Fish Seed Center, Bintan Regency, using a completely randomized design with three treatments, namely ablation, mutilation, and control, each with three replications, with female blue swimming crabs with an initial weight of ± 50 g/tail maintained for 40 days. The parameters observed included the percentage and time of molting, absolute weight growth, carapace length growth, feed utilization efficiency, survival rate, and water quality. The results showed that the molting percentage in all treatments was the same, namely 66.67%, but the ablation treatment resulted in the fastest molting time (± 21 days), the highest absolute weight growth (42.28 g), the largest carapace length growth (2.06 cm), and the best feed efficiency (9.78%), while the highest survival rate was obtained in the ablation and control treatment, with water quality during the study being in the optimal range, so it can be concluded that the ablation method is more effective in accelerating molting and increasing the growth of female crabs, while claw mutilation is more supportive of survival.

Keywords: *Crab, Ablation, Mutilation, Molting*