ABSTRAK

PENGARUH EKSTRAK EMPON-EMPON TERHADAP PERTUMBUHAN IKAN KERAPU MACAN (*Epinephelus fuscoguttatus*) DAN *TOTAL VIBRIO COUNT* PADA MEDIA PEMELIHARAANNYA

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Ikan kerapu macan (*Epinephelus fuscoguttatus*) merupakan komoditas unggulan ekspor perikanan laut, tetapi budidayanya terkendala serangan penyakit vibriosis. Salah satu solusi yang ditawarkan adalah penambahan pakan yang mengandung kombinasi ekstrak empon-empon (jahe, kunyit putih, dan jintan hitam). Penelitian ini bertujuan mengetahui pengaruh konsentrasi terbaik ekstrak empon-empon terhadap tingkat kelangsungan hidup (sintasan), pertumbuhan panjang harian, bobot mutlak, serta total *Vibrio* sp. pada media pemeliharaan ikan kerapu macan. Variabel yang diamati meliputi sintasan, pertumbuhan panjang harian, bobot mutlak, *total Vibrio* sp., serta total bakteri dan kualitas air sebagai faktor pendukung pertumbuhan. Penelitian dilaksanakan pada Oktober 2025–Januari 2026 di Laboratorium Botani FMIPA Universitas Lampung dan Balai Besar Perikanan Budidaya Laut Lampung. Metode yang digunakan adalah eksperimen dengan Rancangan Acak Lengkap (RAL) yang terdiri atas 6 perlakuan dan 4 ulangan. Perlakuan meliputi kontrol positif (K+), kontrol negatif (K-), serta P1 (0,5 ppm), P2 (1 ppm), P3 (1,5 ppm), dan P4 (2 ppm). Data dianalisis menggunakan ANOVA (95%) dan uji lanjut Duncan atau Games-Howell. Hasil menunjukkan bahwa penambahan ekstrak empon-empon tidak berpengaruh nyata terhadap sintasan ikan kerapu macan. Namun, perlakuan P4 (2 ppm) memberikan hasil terbaik dan berpengaruh nyata terhadap peningkatan panjang harian sebesar 4,17 ± 0,11 %/hari dan bobot mutlak 14,50 ± 3,69 g, serta mampu menekan total *Vibrio* sp. terendah pada media pemeliharaan sebesar 1,49 ± 2,94 log CFU/mL.

Kata Kunci: Empon-empon, Ikan Kerapu Macan, Jahe, Jintan Hitam, Kunyit Putih, *Vibrio*.

ABSTRACT

THE IMPACT OF EMPON-EMPON EXTRACT ON THE GROWTH OF BROWN-MARBLED GROUPER (*Epinephelus fuscoguttatus)* AND TOTAL VIBRIO COUNT IN THEIR MAINTENANCE MEDIA

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Brown-marbled grouper (*Epinephelus fuscoguttatus*) is a leading marine export commodity, but its cultivation is constrained by vibriosis. One potential solution is supplementing feed with a combination of herbal extracts. This study aimed to evaluate the effect of different concentrations of herbal extracts on survival rate, daily length growth, absolute weight, and total *Vibrio* sp. in the rearing media of brown-marbled grouper. Measured variables included survival rate, daily length growth, absolute weight, total bacteria, total *Vibrio* sp., and water quality, with water quality and total bacteria considered as supporting growth factors. The research was conducted from October 2025 - January 2026 at Laboratorium Botani Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Lampung and Balai Besar Perikanan Budidaya Laut (BBPBL). A Completely Randomized Design (CRD) with six treatments and four replications was applied. Data were analyzed using ANOVA (95% confidence level), followed by Duncan and Games-Howell tests. Treatments included a positive control (K+), negative control (K-), and four herbal extract concentrations: 0.5 ppm (P1), 1 ppm (P2), 1.5 ppm (P3), and 2 ppm (P4), consisting of ginger, white turmeric, and black cumin extracts. The results indicated that herbal extract supplementation had no significant effect on survival rate. However, P4 (2 ppm) was the most effective treatment, significantly increasing daily length growth (4.17 ± 0.11 %/day) and absolute weight (14.50 ± 3.69 g), while reducing the lowest average total *Vibrio* sp. in the rearing media (1.49 ± 2.94 log CFU/mL).

Keywords: Black Cumin, Brown-Marbled Grouper, Ginger, Herbs, White Tumeric, *Vibrio*.