PENGARUH KOMBINASI PAKAN KOMERSIAL DENGAN IKAN RUCAH TERHADAP PERTUMBUHAN IKAN KAKAP PUTIH *(Lates calcarifer)* BUDIDAYA DI KERAMBA JARING APUNG SUMBERKIMA, BULELENG

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ABSTRAK

Budidaya ikan kakap putih (*Lates calcarifer*) dalam sistem Keramba Jaring Apung (KJA) dihadapkan pada tingginya biaya penggunaan pakan komersial yang berdampak terhadap peningkatan biaya produksi. Kondisi tersebut mendorong pemanfaatan alternatif pakan yang lebih ekonomis tanpa mengurangi performa pertumbuhan dan efisiensi pemanfaatan pakan. Penelitian ini bertujuan untuk mengevaluasi pengaruh kombinasi pakan komersial dan ikan rucah terhadap efisiensi pakan serta pertumbuhan ikan kakap putih, sekaligus menentukan komposisi pakan yang paling optimal. Penelitian dilaksanakan selama enam minggu di KJA Desa Sumberkima, Kecamatan Gerokgak, Kabupaten Buleleng, Bali. Metode yang digunakan adalah eksperimen dengan Rancangan Acak Kelompok (RAK) yang terdiri atas tiga perlakuan dan tiga ulangan. Perlakuan meliputi A (100% pakan komersial), B (75% pakan komersial + 25% ikan rucah), dan C (50% pakan komersial + 50% ikan rucah). Parameter yang diamati meliputi pertumbuhan panjang mutlak, pertumbuhan berat mutlak, laju pertumbuhan spesifik (*Specific Growth Rate*/SGR), rasio konversi pakan (*Feed Conversion Ratio*/FCR), tingkat kelangsungan hidup (*Survival Rate*/SR), serta kualitas air selama pemeliharaan. Data dianalisis menggunakan uji Analisis Varian (ANOVA) pada taraf kepercayaan 95% dan dilanjutkan dengan uji *Least Significant Difference* (LSD) apabila terdapat perbedaan nyata. Hasil penelitian menunjukkan bahwa kombinasi pakan komersial dan ikan rucah berpengaruh nyata terhadap efisiensi pakan dan pertumbuhan ikan kakap putih ($p<0,05$). Perlakuan B memberikan hasil terbaik dengan nilai FCR terendah sebesar 1,877 g/g, pertumbuhan panjang mutlak tertinggi sebesar 5,07 cm, pertumbuhan berat mutlak sebesar 50,5 g, serta nilai SGR tertinggi. Tingkat kelangsungan hidup ikan berkisar antara 90–93%, sedangkan kualitas air berada pada kisaran optimal. Dengan demikian, kombinasi 75% pakan komersial dan 25% ikan rucah merupakan formulasi pakan terbaik untuk meningkatkan efisiensi pakan dan pertumbuhan ikan kakap putih.

Kata kunci: Ikan Rucah, Keramba Jaring Apung, *Lates calcarifer*, Pertumbuhan.

THE EFFECT OF THE COMBINATION OF COMMERCIAL FEED AND TRASH FISH ON THE GROWTH OF CULTURED ASIAN SEABASS (*Lates calcarifer*) IN FLOATING NET CAGES IN SUMBERKIMA, BULELENG

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ABSTRACT

The cultivation of Asian seabass (*Lates calcarifer*) in floating net cage (FNC) systems is faced with the high cost of commercial feed, which leads to increased production costs. This condition encourages the utilization of more economical alternative feeds without compromising growth performance and feed utilization efficiency. This study aimed to evaluate the effect of a combination of commercial feed and trash fish on the feed efficiency and growth of Asian seabass, as well as to determine the most optimal feed composition. The research was conducted for six weeks in FNCs located in Sumberkima Village, Gerokgak Subdistrict, Buleleng Regency, Bali. The experimental method utilized a Randomized Block Design (RBD) consisting of three treatments and three replications. The treatments included A (100% commercial feed), B (75% commercial feed + 25% trash fish), and C (50% commercial feed + 50% trash fish). The observed parameters included absolute length growth, absolute weight growth, specific growth rate (SGR), feed conversion ratio (FCR), survival rate (SR), and water quality during the rearing period. Data were analyzed using Analysis of Variance (ANOVA) at a 95% confidence level, followed by the Least Significant Difference (LSD) test if significant differences were found. The results indicated that the combination of commercial feed and trash fish significantly affected the feed efficiency and growth of Asian seabass ($p < 0.05$). Treatment B yielded the best results, presenting the lowest FCR value of 1.877 g/g, the highest absolute length growth of 5.07 cm, an absolute weight growth of 50.5 g, and the highest SGR value. The survival rate of the fish ranged from 90–93%, while water quality remained within the optimal range. Therefore, the combination of 75% commercial feed and 25% trash fish is the best feed formulation to enhance feed efficiency and the growth of Asian seabass.

Keywords: Floating Net Cages, Growth, *Lates calcarifer*, Trash Fish.