

INTISARI

Pengaruh Suhu terhadap Sintasan dan Pertumbuhan Lele Mutiara (*Clarias sp.*) pada Tahap Pendederan

Penelitian ini dilakukan untuk mengetahui pengaruh suhu terhadap sintasan dan pertumbuhan lele, serta kualitas air untuk budidaya lele mutiara pada tahap pendederan. Pelaksanaan penelitian dilakukan pada bulan Februari sampai dengan Maret 2024 di Laboratorium Genetika dan Pembenihan, Departemen Perikanan, Fakultas Pertanian, Universitas Gadjah Mada. Penelitian ini terdiri dari 4 perlakuan suhu air budidaya yang meliputi suhu 27°C, 29°C, 31°C dan 33°C, masing-masing perlakuan dengan 3 kali ulangan. Benih lele mutiara yang digunakan berasal dari Unit Kerja Budidaya Air Tawar (UKBAT) Wonocatur, Sleman. Lele mutiara dipelihara dalam 12 akuarium, masing-masing akuarium diisi air dengan volume 90 L/akuarium dan ditebari benih lele sebanyak 15 ekor. Lele dipelihara dengan aerasi selama 60 hari dan setiap 10 hari dilakukan penyiponan sebanyak 5% volume air. Pakan lele diberikan dengan dosis 3% dari total biomassa. Parameter yang diamati selama masa pemeliharaan meliputi sintasan dan pertumbuhan lele, serta kualitas air. Analisis yang dilakukan yaitu analisis sidik ragam (ANOVA) dan uji lanjut Duncan dengan tingkat kepercayaan 95%. Hasil analisis yang berbeda nyata dilakukan uji polinomial ortogonal. Data kualitas air dianalisis secara deskriptif. Hasil penelitian menunjukkan perlakuan suhu air berpengaruh nyata terhadap sintasan dan pertumbuhan lele. Perlakuan suhu 31°C memberikan hasil tertinggi pada sintasan 98%; panjang mutlak 4,09 cm; laju pertumbuhan panjang spesifik 0,96 %/hari; berat mutlak 5,59 g; dan laju pertumbuhan berat spesifik 2,44 %/hari. Kualitas air budidaya lele pada perlakuan suhu 31°C berada pada kisaran pH 6,6-7,6; O₂ sebesar 3,4-7,4 mg/l; dan CO₂ sebesar 15,9-21,7 mg/l.

Kata kunci: Kualitas air, lele mutiara, pertumbuhan, sintasan, suhu.

ABSTRACT

Effects of Temperature on Survival Rate and Growth of the Mutiara Catfish (*Clarias* sp.) during Nursery

The research was conducted to determine the influence of temperature on the survival rate and growth of the catfish, as well as the quality of water for mutiara catfish cultivation during nursery stage. The research was conducted from February to March 2024 at the Genetics and Filling Laboratory, Department of Fisheries, Faculty of Agriculture, Gadjah Mada University. The study consisted of four water temperature treatments that cover temperatures of 27°C, 29°C, 31°C dan 33°C. Each treatment has three repetitions. The mutiara catfish seeds used come from Unit Kerja Budidaya Air Tawar (UKBAT) Wonocatur, Sleman. Mutiara catfish were kept in 12 aquariums, each filled with water with a volume of 90 L/aquarium and cultivated with 15 seeds. Catfish was aerated for 60 days and every 10 days a clearance of 5% of the volume of water was performed. Catfish was fed at a dose of 3% of the total biomass. Parameters were observed during the maintenance period include the survival rate and growth, as well as water quality. The analysis was done by ANOVA and a further Duncan test with a 95% confidence rate. The results of a different analysis were performed by an orthogonal polynomial test. The water quality data were analyzed descriptively. The results of the research showed that the treatment of water temperature had a real influence on the survival rate and growth of the mutiara catfish. Treatment at 31°C yields the highest results at an survival rate of 98%; absolute length of 4,09 cm; specific length growth rate of 0,96 %/day; absolute weight of 5,59 g; and specific weight growth rate 2,44 %/ day. The water quality of catfish were cultivated at a treatment at 31°C was in the pH range of 6,6-7,6; O₂ at 3,4-7,4 mg/l; and CO₂ at 15,9-21,7 mg/l.

Keywords: Growth, mutiara catfish, survival rate, temperature, water quality.