

Selecting Fish Combination of Polyculture to Reduce Periphyton Abundance in Floating Net Cage in Cirata Reservoir, West Java, Indonesia

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ABSTRACT

The aim of this research is to find the best combination of fishes in polyculture at Floating net cage in order to reduce periphyton abundance and increase aquaculture productivity in Cirata Reservoir. The research has been conducted from February to March 2015. The research method used was completely randomized design with three treatments and three replications. Treatments consists of fish combination of tilapia with silver barb, carp with silver barb, and black pacu with silver barb and cultured for five weeks in floating net cage size (1 x 1 x 1) m³. weight of fishes were 10 g each for tilapia, carp and silver barb and 4 g for black pacu, stocking density were 80 fishes for each cage. The result showed that combination of black pacu and silver barb produced highest productivity of 459.77 gr / m³ or 82 % during five weeks. The lowest periphyton abundance resulting in a combination of carp and silver barb of 28 345 cells / cm². In conclusion black pacu and silver barb is the best combination due to growth rate and aquaculture productivity but not in periphyton abundance .

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INTRODUCTION

Being a considerable potential area for aquaculture activities in the form of floating net cage, reservoir has taken on issues due to its characteristics as a common property with an open access. The problems have led to the vast growing and uncontrolled number of the net cages; one of which occurs in Cirata Reservoir. Operating with its common purpose, floating net cages in Cirata Reservoir has been developed as a habitat for several types of freshwater fish,