THE VITELLOGENESIS PROCESS of GIANT GOURAMI (*Osphronemus goramy*) by THE MEASURMENT of ESTRADIOL-17β, VITELLOGENIN CONCENTRATIONS and OVARY SIZE

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ABSTRACT

This study was aimed to find out synthesis rate estradiol-17β against vitellogenin and ovary size in female broodstock candidate and female broodstock giant gourami. Broodstock candidates were placed in one pond, while broodstocks were placed in the ponds with male broodstocks (2:1). A phlebotomy was conducted in every weeks during three weeks observation. The blood serum were collected for estradiol-17β and vitellogenin measurement. The observation of ovary size was conducted in last week used ultrasonography veterinary. The average of estradiol-17β and vitellogenin concentrations in broodstock candidate with ± 940 grams of weight, and also ± 36 and 13 cm of length and height were 8.981; 8.448; 4.4 ng/L, and 64.984; 68.918; 35.458 µg/ml, respectively. The average of estradiol-17β and vitellogenin concentrations in broodstock which has spawned more than once were 9.116; 8.187; and 10.285 ng/L, and 66.267; 63.145; 69.603 µg/ml, respectively. The range of long and wide ovaries broodstock candidate and broodstock were ± 18 and 19 mm, and ± 38 and 24 mm, respectively. In conclusion, the almost estradiol-17β of broodstock candidate contributed in vitellogenesis at initial reproduction cycle to achieve maturation stage, differ from the almost estradiol-17β of broodstock didn't contribute in vitellogenesis at subsequent reproduction cycle. The ovary size of giant gourami was categorized small.

Keywords: estradiol-17β, vitellogenin, ovary size, giant gourami