

**LOW WATER STIMULATION IN ARTIFICIAL SPAWNING OF AFRICAN
CATFISH, CLARIAS GARIEPINUS**

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**THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF
BACHELOR OF SCIENCE**

**AQUACULTURE PROGRAMME
SCHOOL OF SCIENCE AND TECHNOLOGY
UNIVERSITI MALAYSIA SABAH**

MARCH 2008



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UNIVERSITI MALAYSIA SABAH

ABSTRACT

The development of a reliable methodology for artificial egg collection of African Catfish, *Clarias gariepinus* without the use of hormone injection would greatly improve the prospects of *C. gariepinus* seed production. Earlier work has shown that it is possible to collect eggs from *C. gariepinus* by subjecting the female brood fish to a physical stress of low water level. The hypothesis that *C. gariepinus* eggs can be collected through physical stress of low water level was tested by studying the oocyte development. Three female brood fishes are selected from the brood fish tank and isolated in three separate one tonne (1000 litre) round tank with water level equivalent to each fish body height. Fishes are kept under low water level for approximately 24 hours. Oocyte sampling is done by cannulation work every interval of two hours. Oocyte development is observed under microscope to identify development stages. Development stages is identified by the position of the germinal vesicle (GV) in the oocyte and is categorized into six stages where stage one for being immature stage and stage six for oocyte final maturation stage. The experiment was conducted in three replicates. All experimental fishes observed undergo similar trend of oocyte development where the maximum stage achieved during the experiment was stage three. The results indicate that oocytes are developing in female *C. gariepinus* brood fish which are subjected to a physical stress of low water level. However more study should be conducted to continue to develop a reliable methodology for artificial egg collection of *C. gariepinus* without the use of hormone injection.

