

**EFFECT OF AERATION SYSTEM ON THE GROWTH AND SURVIVAL OF
AFRICAN CATFISH (*Clarias gariepinus*) FRY WITH LIMITED
WATER FLOW IN TANK**

By

GILBERT M. CALLO

An Undergraduate Thesis presented to the Faculty of the College of Fisheries in partial fulfillment of requirements of degree of

BACHELOR OF SCIENCE IN FISHERIES

**Department of Aquaculture
COLLEGE OF FISHERIES
CENTRAL LUZON STATE UNIVERSITY
Science City of Muñoz, Nueva Ecija
Philippines**

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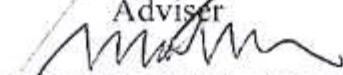
GILBERT MARTIN CALLO

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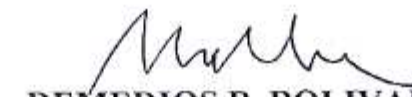

KARL MARX A. QUIAZON
Adviser
06/22/18
Date


REMEDIOS B. BOLIVAR
Critic
06/26/18
Date


NOTED:


KARL MARX A. QUIAZON
Department Chair
06/22/18
Date

RECORDED:


REMEDIOS B. BOLIVAR
College Research Coordinator
06/26/18
Date

ACCEPTED:


RAVELINA R. VELASCO
Acting Dean
6/18/18
Date

BIOGRAPHICAL DATA



PERSONAL DATA

Name	Gilbert M. Callo
Birthday	March 25, 1995
Birth Place	Marcos District, Talavera, Nueva Ecija
Address	Marcos District, Talavera, Nueva Ecija
Parents	Gloria M. Callo and Gregorio M. Callo

EDUCATION ATTAINMENT

Elementary	Talavera Central School Marcos District, Talavera, Nueva Ecija
Secondary	Talavera National High School Pag-asa District, Talavera, Nueva Ecija
Tertiary	Central Luzon State University Science City of Muñoz, Nueva Ecija

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ABSTRACT

The 28 days rearing experiment was done to evaluate the growth performance of African catfish (*Clarias gariepinus*) fry reared with limited water flow in circular tank. The study had for treatments which were replicated thrice, namely; Treatment 1 (Control) – continues water inflow; Treatment 2 – no water inflow and no aeration; Treatment 3 – No water inflow with 12 hours aeration; Treatment 4 – no water inflow with 24 hours aeration.

Results of the study showed that Treatment 1 and Treatment 4 have better growth performance as compared to the other treatments. African catfish reared in continues water inflow provided the highest values in growth parameter such as average final weight at 1.040g, gain in weight at 1.008g, absolute growth rate (AGR) at 0.036g/day, specific growth rate (SGR) at 12.420% followed by no water inflow with 24 hours aeration with average final weight at 0.667g, gain in weight at 0.635g, AGR at 0.023g/day and SGR at 10.832%. The lowest values for the growth performance were from T2 for average final weight at 0.631g, gain in weight at 0.599g, absolute growth rate (AGR) at 0.021g/day, specific growth rate (SGR) 10.643%. In addition, fry subjected to the T2 had the lowest final total length of 0.631cm. In term of survival rate, the highest was observed again in T1 at 50.666% followed by T4 with 45.833% and the lowest was T2 with 36.66%.

It is recommended the conduct of a study particularly on the comparison among continues water inflow, aeration with heater and no aeration with heater. A simple cost and return analysis is also significantly recommended.

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