PDF - COMPARISM OF THE GROWTH AND SURVIVAL OF AFRICAN CATFISHES AND THEIR HYBRID USING PLASTIC CONTAINER - researchcub.infoCHAPTER ONE

INTRODUCTION

BACKGROUND OF THE STUDY

The demand for fish as an appreciable source of protein inthe global nutrition is high but the supply of the product remainedinsufficient. This is because fishing in the world seas and oceans appears toreach a maximum productive level, whereas statistical analysis revealed asignificant increase of human fish consumption yearly (Jamiu, et al., 2000).The target of Aquaculture industries is to produce a table size fish within ashort period of time which can be achieved through choice of culture species,careful selection of brood-stock, availability of feed, stocking density, goodwater supply and good management system at the culture level.

Catfish production is a welcome practice in the history ofAquaculture. African catfishes mostly Clarias gariepinus and Heterobranchuslongifilis species remained the most culturable species due to their goodtaste, fast growth rate, high stocking density and ability to adapt and surviveadverse condition. (Hogendoorn, Fang, et al., 1986, Ayinla, et al., 1988; FAO,2003; Jamiu, et al., 2004). Unfortunately, the successful story of aquaculturein Nigeria is being punctuated by high cost of imported fish feed such asCoppens. Udo et al., (2011) observed high cost of fish as a major problem toglobal aquaculture development, this account for 60% of total cost ofproduction (Gabriel, et at., 2007).

It has been observed that Heteorbranchus longifilis unlikeClarias species, requires longer period to attain sexual maturity which is1year and above for male and 11/2 year for female brood-stock. Consideringeconomic situation of most farmers, ability and the willingness to culture thespecies for longer period to attain sexual maturity using commercial feeds likeCoppens remained difficult. This initiated the idea of hybridization of the twospecies in order to achieve the product of highest disease resistant with fastgrowth and higher survival of the species but the growth comparism and survivalof African catfishes and their hybrid using plastic container had not beenreported which is the focus of this study.

STATEMENT OF PROBLEM

Culture of African catfish practice among fish farmers butunlike Clarias species, Heterobranchus production remained difficult mostly atthe early stage of productions leading to insufficient supply of fingerlingsfor Farm stock. The idea of hybridization for production of species of higherdisease resistant and fast growth and survival becomes a recent practice amongfish breeders, Hybridare stelied which cannot be used for the generation of thespecies. Therefore, among pure line Heterobranchus, Clarias species and their correspondinghybrid the need to identify specie with the best growth performances andsurvival remained crucial.

Due to insufficient supply of fingerling of choice, farmersembraced any available seed of catfish without detecting the growth performanceand survival within a specific period of time using the same feed product.Considering high cost fish feed, farmers who experienced poor growth of fishare discouraged. This is because there is no established fact guiding theproduction of commercial and production species of catfish.

AIMS/OBJECTIVES OF THE STUDY

The objectives of the study include:

To detect the best growth performance among African Catfishand their corresponding hybrid.

To detect the species with the highest survival cultureunder the same condition.
To enlighten fish farmer on the best species to be culturedfor commercial and for production purposes.

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