

**STUDIES ON THE GROWTH, REPRODUCTION AND
AQUACULTURE POTENTIAL OF THE AFRICAN BONY
TONGUE FISH (*HETEROTIS NILOTICUS*) IN PONDS AND
RESERVOIRS IN COASTAL SOUTH-WEST STATES OF
NIGERIA**

***Y. AKEGBEJO-SAMSONS, F.O.A. GEORGE AND A.O. AGBON**

Department of Aquaculture and Fisheries Mgt., University
of Agriculture, P.M.B. 2240, Abeokuta, Nigeria

*Contact author <samson56@yahoo.co.uk>

ABSTRACT

This paper presents some of the results of a study carried out at the large reservoirs and small ponds in the coastal southwest area of Nigeria. It was aimed at identifying some of the culture problems associated with the culturing of *Heterotis niloticus* in both large reservoirs and small ponds in South-west Nigeria. The focus was essentially to shift the exploitation of the species from the wild to cultured environment. Four rearing ponds each having a total surface area of about 0.72 ha were prepared (fertilized with chicken manure) and impounded for four weeks before the introduction of 1000 juveniles of *H. niloticus* into the ponds and 1000 juveniles into the reservoirs. Both ponds and reservoirs were stocked at 5 juveniles per m². The factors tested consisted of growth, reproduction and aquacultural potentials of the African bony tongue. Growth and survival rates were different but better and higher in reservoirs than ponds. Daily weight gain (DWG) was between 1.63 and 1.72 g in the ponds while it was higher (3.16-3.19g) in the reservoirs. The condition factors (CF) were also higher in the reservoirs (2.04-2.08) compared to 0.66 in the ponds. The specific growth rate (SGR) ranged between 0.54 and 0.55 in the ponds as against a higher value of 0.74 in the reservoirs. Survival rate in both ponds and reservoirs was between 80 and 85%. Reproduction (production of fry) occurred twice in the reservoirs with an average of 59 fry per school. No reproduction was recorded in any of the ponds during the experimental period (9 months). Fish raised in the reservoirs reached maturity level faster than those raised in the ponds. Results from data collected suggested that (a) rearing in conventional earthen ponds can be unduly prolonged in order to allow fish to attain desired weight; (b) production of *H. niloticus* is faster, more efficient and more profitable in terms of weight gain, feed gain ratio than in ponds.

Keywords: Growth, reproduction, aquacultural potential *Heterotis niloticus*, Nigeria