

**GROWTH AND SURVIVAL OF DIPLOID AND TRIPLOID  
HETEROBRANCHUS BIDORSALIS REARED IN OUTDOOR TANKS AND  
THEIR AQUACULTURE POTENTIALS**  
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**ABSTRACT**

Triploidy was induced in *Heterobranchus bidorsalis* by subjecting fertilized eggs to cold shock treatment at 5°C for 40 minutes. Diploid and triploid juveniles of mean weight: 21.81g and 28.20g/ respectively were stocked into 2 x 2 x 1.2m outdoor concrete tanks. The treatments (made up of diploid and triploid strains) were in triplicates and were fed with a diet containing 45% crude protein. All fish were weighed bi-weekly. At three months, triploid *H. bidorsalis* grew to mean weight of 77.28g compared with 51.50g of diploids. The growth was significantly different ( $p < 0.05$ ). At nine months of age the triploids (mean weight 860g) were significantly heavier than the diploids (mean weight 712g). Triploids had smaller gonads with altered histology. Dietary digestibility showed that the triploids converted feed efficiently (FCR=1.92) than the diploid (FCR=2.15) and may provide greater profits in commercial catfish culture than diploids.

**Keywords:** Growth; Survival; Triploidy; Aquaculture potentials.