

## **Growth performance and gonad maturation of amur catfish, *silurus asotus* in captivity**

### **ABSTRACT**

This study was aimed to determine the growth performance and gonad maturation of Amur catfish, *Silurus asotus* reared in captivity. A total of 600 juvenile Amur catfish were reared in a 20-tonne aerated fibreglass tank for 3 months. The changes to body weight (mean  $\pm$  SD) of Amur catfish at day 14 was  $22.59 \pm 3.59$  g and attained a final average body weight of  $110.95 \pm 19.72$  g. The average body weight gains (%) were 213.50% and gradually decreased to 109.95%. The specific growth rate recorded at 14-day intervals was 5.42%/day and fluctuated to 3.32%/day, 0.39%/day, 0.51%/day, with the corresponding measurements of  $15.36 \pm 1.07$  cm and increments to  $24.22 \pm 1.34$  cm. The final total length the fishes attained was an average of  $25.58 \pm 1.95$  cm. The total length gain recorded was 124.61% and followed by 109.95%. The survival of Amur catfish within the three months was 29.17%. Length-weight relationship of the Amur catfish showed a strong correlation at  $\log W = -2.6797 + 2.3102 \log L$  and the value of the regression coefficient (b) equalled to 2.3102. Three stages of the oocyte (PO = primary oocyte, PVO = previtellogenic oocyte and VO = vitellogenic oocyte) determined histologically indicated that all-female gonad samples were in the developing stage. Matured gonad and spermatozoa were also observed in males. This study concludes that Amur catfish attained good growth performance and fast gonad maturation in captivity and can be a suitable species for aquaculture.