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Growth Response of *Heteroclarias* Fingerlings Fed on Earthworm Meal in Hatchery Tanks

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ABSTRACT The study evaluated growth response of *Heteroclarias* fingerlings fed practical diet in which fish meal was substituted with graded levels of earthworm meal (E_0, E_{25}, E_{50}, E_{75} and E_{100}) in indoor tanks. Fingerlings were obtained through artificial insemination of brood stock with ovaprim in the laboratory. The resulting fries were fed with freshly harvested plankton for 4 weeks. Thereafter sixteen fingerlings weighing 4.73 g and measuring 6.512 mm standard length (on the average) were starved overnight and reared in five indoors tanks (0.8x 0.5x 0.5 m) in duplicate for eight weeks. Fingerlings were fed on graded earthworm meals containing 40% protein fed to the fingerlings twice daily at 0080 and 1600 hours. The best mean weight (6.77 g), specific growth rate (0.86) and protein efficiency ratio (0.6) was obtained with diet E_{50}. Food conversion ratio (4.47) was highest with diet E_{50} and lowest (4.07) with diet E_{00} which was significant ($p<0.05$). The profit index for diet E_{50} was the highest (1.71). Again the highest net profit ₦ 374.32 was recorded for diet E_{50}. Water quality parameters observed were within tolerable units and conducive for the growth of the fingerlings well being. Earthworm meal at 50% inclusion drastically reduced production cost which was suggestive that, the meal was an excellent alternative protein source than fish meal in feed formulation.