## Comparative Effects of Homoplastic and Synthetic Pituitary Extracts on Induced Breeding of Heterobranchus longifilis (Valenciennes, 1840) in Indoor Hatchery Tanks in Owerri South East Nigeria

Authors : I. R. Keke, C. S. Nwigwe, O. S. Nwanjo, A. S. Egeruoh

**Abstract :** An experiment was carried out at Urban Farm and Fisheries Nigeria Ltd, Owerri Imo State South East Nigeria between February and June 2014 to induce Brood stock of Heterobranchus longifilis (mean wt 1.3kg) in concrete tanks (1.0 x 2.0 x 1.5m) in dimension using a synthetic hormone (Ovaprim) and pituitary extract from Heterobranchus longifilis. Brood stock males were selected as pituitary donors and their weights matched those of females to be injected at 1ml/kg body weight of Fish. Ovaprim, was injected at 0.5ml/kg body weight of female fish. A latency period of 12 hours was allowed after injection of the Brood stock females before stripping the egg and incubation at 23 °C. While incubating the eggs, samples were drawn and the rate of fertilization was determined. Hatching occurred within 33 hours and hatchability rate (%) was determined by counting the active hatchings. The result showed that Ovaprim injected Brood stock eggs fertilized up to 80% while the pituitary from the Heterobranchus longifilis had low fertilization and hatching success 20%. Ovaprim is imported and costly, so more effort is required to enhance the procedures for homoplastic hypophysation.

Keywords : heterobranchus longifilis, ovaprim, hypophysation, latency period, pituitary

Conference Title : ICMSA 2016 : International Conference on Marine Science and Aquaculture

Conference Location : Amsterdam, Netherlands

Conference Dates : May 12-13, 2016