

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

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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

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