Preliminary Trials on the Optimization of Hormone Dosages for Induced Breeding of Philippine Silver Perch, *Leiopotherapon plumbeus*

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The silver perch *Leiopotherapon plumbeus*, locally known as ayungin, is an endemic freshwater fish that is commercially valuable as it commands a high price in the local market. Due to excessive fishing and other potential causes such as predation by invasive alien species, the local *L. plumbeus* stocks are observed to be depleting hence there is a need for an induced breeding protocol to propagate silver perch and conserve what remains of the resource. In this study, 30 females (total length or TL: 109.4 ± 12.2 mm; total body weight or TBW: 20.3 ± 6.1 g) and 60 males (TL: 97.1 ± 11.6 mm; TBW: 13.4 ± 5.5 g) were injected once intra-muscularly with different doses of hormones. Various dosages of human chorionic gonadotropin (HCG), luteinizing hormone releasing hormone analog (LHRHa) and salmon gonadotropin releasing hormone (sGnRH) were evaluated to identify the most effective dosage and hormone that resulted to high ovulation, fertilization and hatching rate. For the hormone sGnRH, 20, 30 and 40 µg/kg body weight (BW) and 1, 2 and 3 µg/kg BW for LHRHa were the dosages used in the experiment. The dosage used for HCG is 50 IU/g BW and served as the control. The findings of the experiment determined that the use of 20 µg/kg body weight of sGnRH resulted to high ovulation, fertilization and hatching rates. The result of the experiment would provide an efficient protocol for the local fishermen so they can produce, on demand, a large supply of this high quality fish species.

Keywords: silver perch, induced breeding protocol