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EFFECT OF GONADOTROPIN HORMONE (OVAPRIM[®]) ON SEMI-ARTIFICIAL BREEDING OF CLIMBING PERCH (*Anabas testudineus*) UNDER SRI LANKAN CONDITIONS

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Anabas testudineus (Climbing perch) is one of the hardiest, indigenous freshwater fish species in Sri Lanka's inland waters. Development of mass production methods for this fish species has become mandatory for conservation purposes. They are also required to use this fish as a cultured fish in Sri Lankan reservoirs. Therefore, the objective of this study was to develop a semi-artificial breeding technique for *A. testudineus*, under Sri Lankan conditions. Wild guppy (*Poecilia reticulata*), tilapia (*Oreochromis niloticus*) and tadpoles (*Bufo bufo*) of around 1 cm total length were used to find the most preferred live feed for *A. testudineus* and the daily requirement of the preferred live feed. Results revealed that feed preference of *A. testudineus* for tadpoles (*Bufo bufo*) was significantly ($p < 0.05$) higher than for wild guppy (*Poecilia reticulata*) and tilapia (*Oreochromis niloticus*). Small (0-25 g), medium (25-50 g) and large (50-75 g) sized *A. testudineus* required 0.84, 1.78 and 1.93 g of tadpoles/fish/day respectively. Sex was differentiated by visual observation of external genital organs.

The present study showed that *A. testudineus* does not breed naturally under captive conditions. Induced breeding was effective with the hormone Salmon GnRH α (Ovaprim[®]). An intramuscular injection of Ovaprim[®] was administered at 0.2, 0.35 and 0.5 ml/kg of body weight as a single dose for females and half the dosage for males. Hormone treated fish were left to spawn in aerated glass tanks with a sex ratio of 1:1. It was found that fish which were given an Ovaprim[®] dosage of 0.5 ml/kg of body weight only had released eggs. Mean number of eggs laid by the female *A. testudineus* with a mean body weight and total length of 50.9 \pm 3.1 g and 14.6 \pm 0.3 cm respectively after 12-15 hours latency period was 40 220 \pm 7 676. Mean fertility rate of eggs was 93 \pm 10%, which hatched after 24-26 hours and % hatchability was 80 \pm 15. Survival rate of post larvae after three weeks was 18.3 \pm 4%.

The present study suggests that the administration of Salmon GnRH α (Ovaprim[®]) hormone at the rate of 0.5 ml/kg of body weight can be used to successfully breed *A. testudineus* under Sri Lankan conditions.