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ABSTRACTS OF PAPERS

Initial success of induced breeding of Ceylon stone-sucker *Garra ceylonensis* (Family: Cyprinidae) using Ovaprim

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Ceylon stone sucker (*Garra ceylonensis,* Bleeker 1863) is a small threatened Cyprinid, endemic to Sri Lanka. It has become the highest exported endemic ornamental fish species in Sri Lanka. They all are wild collected as there is no record of their captive breeding for commercial purposes. Hence, the present study attempted to investigate possibility of developing an induced breeding technique with view to minimizing the exploitation of wild stocks. The sub adults (body weight 6.87±0.66g and total length 8.38±0.61cm) were collected in March 2012 from the Nakkavita stream (altitude, 90.52 m above mean sea level, latitude 6° 55′ N, 80° 20′ E) in the wet zone. The captured fish were reared in cement ponds and provided with 3% of body weight (BW) of commercially available diet twice a day. All fishes were closely monitored weekly for maturity over 14 week period. Thereafter, the gravid females were subjected to intra ovarian biopsy once a week. The females with modal diameters of oocytes >1.2 mm (1348 ± 45 μm, average) and moving germinal vesicle towards peripheral were subjected to induced breeding trials. Three doses of Ovaprim (Ovaprim 1mL consists of 20μg of GnRHa +10mg of Domperidon) 0.25 mL/kg of BW, 0.5 mL/kg of BW and 0.75 mL/kg of BW were used as single dose for each female in replicates. At the same time selected males were treated with half of the dose used for the female at 1500hrs. Nine 60cm x 30cm x 30 cm indoor glass tanks of 20cm water depth with small stones laid at the bottom were used as the spawning tanks. Spawning was observed only in the tanks that were treated with the concentration of 0.5 mL/kg of BW and 0.75 mL/kg of BW after 12hrs. During the latency period, the water temperature ranged from 27.1 °C - 28.3°C and pH was measured as 8.1. Their hatching period was 36-48h and fertility was observed as 85%. Present study revealed that the single Ovaprim dose ranged from 0.5 – 0.75 mL/kg of BW of female and its half dose for male can successfully use for in induce breeding of *G. ceylonensis* and can produce viable eggs with high fertility.

Keywords: *Garra ceylonensis*; Endemic ornamental fish; Induced breeding