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ABSTRACTS OF PAPERS

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Recent study on spawning success of *Pangasius sutchi* (Thailand Catfish) in Sri Lanka using Ovaprim™

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Pangasius sutchi, commonly known as striped catfish, is very popular as an exotic ornamental fish in Sri Lanka. Breeding of this fish is rather difficult; therefore, the industry generally depends on the imported juvenile stages. Hence, the present study was carried out to determine the techniques of induced spawning of the fish. Brood fish were raised with the stocking density of 2.5 kg/m^3 in cement ponds for a period of 3 ½ years and supplied commercially available diet. Female fish with distended abdomen and pinkish vents were subjected to intra ovarian biopsy. The modal diameters of the oocytes were greater than 1.0 mm (1.12 ± 0.05 mm, on average) and germinal vesicle were moved to the peripheral. Males were tested for milt by applying gentle stripping to the abdomen. Two successive Ovaprim [1ml of Ovaprim® (Syndel Laboratories, Canada) contains 20µg of GnRH a and 10 mg Domperidon] intramuscular injections of 0.3 and 0.7 ml of female body weight (BW) were given at 12 h intervals and the male was injected 0.4 ml at the same time as the first injection of females. The modal oocyte diameter after 12 h from the first injection (just before second dose of Ovaprim) was 1.31 ± 0.05 mm. They were observed to be more rounded with advancement of germinal vesicle migration. The germinal vesicle break down (GVBD) appeared after 10 h from the second injection. In order to detect the movement of ovulation, gentle stripping trials were performed every 30 minutes and full ovulation occurred after 12 h latency. Mean water temperature ranged between 27.1 and 28.3°C during the period of latency. The fertilized eggs hatched within 30-40 h and hatchability was 68%. The injection of 0.5 ml kg^{-1} of female BW in two doses as ⅓ and ⅔ between 12 h and 10-12 h latency was successful to get viable eggs, ease stripping response and good hatchability.

Keywords: spawning success, *Pangasius sutchi*, Ovaprim

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Mortality due to septicaemia in *Poecillia reticulata* (Guppy): Investigation of the causative agent and treatment

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Septicaemia due to bacterial infections is one of the major causes of fish mortality and a major health problem in keeping ornamental fish. This study was carried out during year 2006 to investigate the causative agent of a disease in brood stocks of *Poecillia reticulata (*Guppy) reared at commercial level, that exhibited the signs of septicaemia, and to establish a suitable treatment. Affected fish also showed lethargy, loss of appetite and loss of body condition together with emaciation.

After external examination of skin and gills for ectoparasites, samples were aseptically collected from the kidney and liver of ten moribund guppy females for bacteriological investigations. A Gram-negative, motile rod was isolated in pure culture and an array of biochemical tests were carried out to identify the organism and the results revealed that the organism responsible for septicaemia belonged to the species *Aeromonas sobria*. Antibacterial sensitivity test (ABST) was carried out and a treatment trial was conducted with three antibiotics, neomycin sulphate (20mg/kg BW for 10 days), cotrim (300mg/kg BW for 14 days), and chloramphenicol (500mg/kg BW for 14 days), that were found to be effective against the pathogen. For each treatment, three hundred and twenty diseased brood female fish were selected randomly from infected tanks. Out of four groups of affected fish, three groups were fed with medicated feed while the other group was kept as the control. For each treatment and control four replicates were used. Mortality of fish was recorded against each treatment. Data were statistically analyzed using SAS 6.12 program. The CRD and Dunnett's method were used to analyze the data set and differentiate the significant means respectively. A significant difference (P0.05) was observed in the mean survival of fish treated with neomycinsulphate (87.5%), cotrim (82.5%), and chloramphenicol (82.5%) and among the treatment means against the control (42.5%). According to the Dunnett's test the best treatment is neomycin sulphate (2mg/kg BW for 10 days).

Keywords: Guppy, Septicaemia, Emaciation, brood stocks, *Aeromonas sobria*

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