

## FIRST REPORT ON SUCCESSFULLY INDUCED BREEDING AND LARVAL REARING OF ONE STRIPE SPINY EEL *MACROGNATHUS ARAL* FOR ARTIFICIAL PROPAGATION AND CONSERVATION

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*In this study, wild *Macrognaathus aral* were collected from different floodplain wetlands in the lower Gangetic basin. These fish are significant both for their nutritional value and as ornamental fish, resulting in high market demand. To induce spawning under captive conditions, mature fish were injected with the synthetic hormone Spawn Pro, which contains GnRH. Different doses of the synthetic hormone (ranging from 0.03 to 0.05 ml/kg body weight) were administered via intramuscular injection. Each set of fish was placed in a glass aquarium with hollow tubes covered with 0.6mm mosquito netting. Spawning behavior varied with different hormonal doses, and no spawning was observed in the control set. Fertilization rates ranged from 25.80% to 72.62%, with each female depositing between 85 to 135 eggs. The fertilized eggs, measuring 2460 $\mu$ m to 2650 $\mu$ m, were attached to the net in the breeding tank. The eggs hatched 30-32 hours after fertilization, with a hatching rate of 40.50% to 77.86%. Newly hatched larvae measured  $2.8 \pm 0.03$  mm, with a yolk sac diameter of  $590.94 \pm 10\mu$ m. The survival rate of hatchlings after the first week ranged from 5% to 10%. This study provides essential baseline data for breeding, seed production, conservation, and further propagation of these ornamental fish.*

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