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RESEARCH **P**APER

Artificial breeding of freshwater catfish *Heteropneustes fossilis* (Bloch, 1794) using synthetic hormone

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The objective of the present study was to study the induced breeding technique and embryonic development of *Heteropneustes fossilis* (Bloch, 1794). The female brooders were injected intramuscularly with hCGhormone (6.95 IU/g dose of body mas). After 12 ± 2 h of latency period, the fertilized eggs were obtained by artificial insemination. The fertilized eggs were demersal, non-adhesive, spherical, brownish green in colour with red cap or blastidosc. The average diameter of the fertilized eggs was 1.5±0.5mm. The different stages of embryonic development were captured under bright field microscope (Olympus Cx 41) using micro publisher 3.3 RTV camera (Qimaging, BC, Canada). The mean fertilization and hatching rate was 98.7±0.5 % and 98.3±2.5 %, respectively. The complete yolk was consumed within 3 days after hatching. The hatching period was 23-24 hr. The newly hatched larvae were 3.0 ±0.2 mm in length.These observations showed that catfish can be bred successfully and this study would help in managing the induced breeding programmes of *H. fossilis*.

Key words : *Heteropneustes fossilis*, hCG, Fertilized egg, Blastodisc, Hatching

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