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Research Article

Captive breeding and Early Development of Near Threatened Rainbow Snakehead (*Channa bleheri* Vierke, 1991)

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ABSTRACT

In the current study captive breeding, embryonic and larval development of Near Threatened (NT) (IUCN ver. 3.1) snakehead *Channa bleheri* Vierke, 1991 was carried out. Breeding of *C. bleheri* was tried under captivity by segregating paired males and females in aquariums. Three pairs of fishes bred successfully in the experiment. The fertilized eggs were non-adhesive, buoyant, and light yellow in colour with a diameter between 0.9 to 1.1 mm in diameter. The egg incubation period was between 32-34 hours. The fertilization and hatching rate was found between 84-87% and 78-84% respectively. Hatchlings appeared pale yellow in colour with well-defined yolk sac with transparent fin fold with fully functional heart measuring 2.8-3.2 mm long. Vigorous tail movement of larvae was seen with a well-defined yolk sac initially which got fully absorbed after 3 days. Post larval period of larvae started after yolk absorption and then the larvae started feeding exogenously. Aerial breathing started after 10 days and larvae reached a length of 1.2±0.27 cm. After 25 days larvae were seen to move in shoal and the length was 1.83±0.528 cm and resembles the adult fish in all aspects. Since the species is under constant threat due to its burgeoning demand in the ornamental fish trade, the culture protocol developed during the present investigation along with information on its rearing as well as embryonic and larval rearing will not only help in reducing pressure on the natural stocks but also pave way for the development of management and conservation strategies.

Key words: Captive breeding, *C. bleheri*, hatchlings, conservation