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Cage culture of mud crab in the coastal water of Bangladesh

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Abstract

The coastal area of Bangladesh and also other Asian countries supports a crab-friendly environment providing a mass cultivable area, availability of natural fingerlings and other facilities. In many countries mud crab is an unused and underexploited fishery resource. In Bangladesh mud crab culture in earthen pond was started during 1993 in some parts of the coastal areas, especially in Chakaria Sundarban, Munshiganj, Sathkhira and Paikgacha areas. Recently, the traditional method of crab culture in earthen ponds has been improved with scientific inputs. However, crab culture in cages was introduced for the first time in Bangladesh in 2003. High mortality and low growth rate have been the major causes of low production of mud crab (Scylla sp.) from traditional system of fattening in earthen ponds. To solve the existing problem, an attempt was made to compare cage and pond culture systems. In cell cage, higher growth rate (1.12 g/crab/day) and lower mortality (3-7%) were observed, whereas, a different condition prevailed in case of pond culture (growth rate 0.51 g/crab/day and mortality 8-12%). The growth rate of male crab was found always higher than the female crab. Mud crab fattening in cell cage required comparatively low investment (Tk.670.00/crop/cage) and was more profitable (approximately Tk.350.00) than earthen pond (investment Tk.2350.00/crop/pond and profit Tk.224.00). Growth and mortality rates were influenced by seasonal variations which governed salinity and temperature in the study area. The results clearly indicate that the cage culture of mud crab is sustainable and economically favorable for the poor and landless coastal population. Cage culture of mud crab may be introduced in other Indo-Pacific countries for better quality, high growth and low mortality.

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