D-27: Experimental study on the culture of the catadromous ornamental fish, *Monodactylus argenteus* in net pens

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A study was carried out to determine the feasibility of culturing *Monodactylus argenteus*, an indigenous ornamental catadromous fish, in net pens installed in dug out earthen ponds adjoining Negombo estuary. Arrangements were made for the exchange of water between ponds and the estuary through connecting canals during tidal change. Experiments were carried out with 2 groups of fingerlings and juveniles. One group was fed with a supplementary formulated feed while the other group served as control and were fed only on natural food.

Analysis of water in the ponds and the estuary showed that there were no significant differences in salinity, pH and dissolved oxygen values between the water in the ponds and estuary. Percentage survival was higher among fingerlings (95%) and juveniles (89%) that were fed with a supplementary feed than that of the controls (88% and 75% respectively). The fingerlings fed with supplementary food, gained weight on an average from 0.078 g to 4.71 g, while the controls grew from a similar weight to a weight of 2.21 g. Juveniles that were fed, grew in weight on an average from 3.51 g to a weight of 9.72 g while the controls grew from 3.50 g to an average weight of 6.0 g over the same period of culture.

M. argenteus is captured, usually from estuaries, to be exported at a size range of 4-6 cm (2.0 - 5.0 g). Environmental degradation, competition for food, predatory activities, etc could deplete the number of this fish in the natural habitat. The present study shows that fingerlings of M argenteus could be collected and reared successfully and profitably in net pens.

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