Development of breeding and fingerling production techniques for endangered long-whiskered catfish Sperata aor in captivity

ABSTRACT

An experiment was undertaken to develop a suitable seed production technique for Sperata aor in captivity. Naturally produced fry of aor was reared at different densities in nine nursery ponds 0.012 ha in size with an average depth of 0.8 m each. Three stocking densities tested, each of which was triplicated. Fry of aor stocked at 100,000/ha was designated as treatment-1 (T1), 150,000/ha as treatment-2 (T2) and 200,000/ha as treatment-3 (T3). All stocked fry were from the same age group with mean length and weight of 1.78 ± 0.28 cm and 0.24 ± 0.05 g, respectively. Fry in all the treatments were fed with SABINCO nursery feed (32.06% crude protein) for the first 14 days and starter-I (31.53% crude protein) for days 15 to 56. Physico-chemical parameters and plankton population of pond water were within the optimal level being better in T1 than those in T2 and T3. Growth in terms of final weight and length, weight and length gain, specific growth rate, daily growth rate, and survival of fingerlings were significantly higher in T1 followed by T2 and T3. Food conversion rate was significantly lower in T1 than in T2 and T3. Significantly higher number of fingerlings was produced in T3 than those in T2 and T1. Despite this, consistently higher net benefits were achieved from T1 than from T2 and T3. This is the first time report that stocking of 100,000 fry/ha appears to be the most suitable density for rearing of aor fingerlings in nursery ponds.

Keyword: Sperata aor; Fry; Stocking density; Fingerling; Growth; Production