



The effects of fasting and re-feeding periods on growth performance and feed efficiency of Sobaiya seabream (*Sparidentex hasta*) and yellowfin seabream (*Acanthopagrus latus*)

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Abstract:

The present study was conducted to evaluate the effects of fasting and re-feeding periods on growth and feed utilization of sobaiya seabream (initial weight = 10 g) and yellowfin seabream (initial weight = 4.3 g) for 8 weeks. In this regard four treatments was designed including: control (fed every day), T1 (fasted for 1 week and re-fed for 7 weeks), T2 (fasted for 2 weeks and re-fed for 6 weeks) and T3 (faste for 3 weeks and re-fed for 5 weeks). At the end of the trial, final weight of sobaiya seabream was not affected in different treatments. Fish in T3 had the highest specific growth rate (SGR) and the best feed conversion ratio (FCR) ($P < 0.05$). The lowest survival rate was observed in T3 group as a consequence of cannibalism. Regarding, yellowfin seabream, final weight of fish remarkably decreased with increasing fasting duration, thus fish in the control and T3 groups had the highest (13.4 g) and the lowest (10 g) final weights, respectively. Feed conversion ratio and specific growth rate did not changed in different groups. In both fish species fish in the control had the greater feed intake than the other treatment. The results showed that, sobaiya seabream had clear compensatory growth in response to fasting periods by increasing SGR and significant improvement of FCR, indicating this species demonstrate trajectory growth by increasing feed utilization. However, yellowfin seabream did not show any compensatory growth in response to fasting and re-feeding periods. These findings can be applicable in management of feeding strategies during grow-out phase for both species.

Keywords: Sparidae, Compensatory growth, feed utilization, specific growth rate