

## Effect of Different Commercial Diets and Temperature on the Growth Performance, Feed Intake and Feed Conversion Ratio of Sobaity Seabream *Sparidentex hasta*

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**Abstract :** Two separate feeding trials were conducted to determine the effects of using different commercial diets and water temperatures on the growth performance, feed intake, feed conversion ratio (FCR) and condition factor of sobaity seabream *Sparidentex hasta*. In experiment I, growth performance, feed intake, protein efficiency ratio (PER), feed conversion ratio (FCR) and survival (%) of sobaity seabream *Sparidentex hasta* ( $330.5 \pm 2.6$  g;  $26.9 \pm 1.0$  cm) were evaluated by four different commercial diets (1, 2, 3 and 4) for 80 days. The daily weight gain was around 3.2 g day<sup>-1</sup> with an SGR of 0.7% day<sup>-1</sup>. Both the FCR and PER in the fish were significantly better in diet 2 that contained 46.36% crude protein and 12.54% crude fat. In experiment II, ( $99 \pm 2.6$  g;  $17.1 \pm 1.0$  cm). The fish were cultured in 1m<sup>3</sup> tanks supplied with seawater from the Red Sea wherein three different rearing temperatures were set as treatments (24, 28 and 32°C). Fish were fed with a commercial diet based on the results of experiment I (46.4% protein; 20.1 MJ kg<sup>-1</sup> energy) to satiation for 96 days. Total weight gain was significantly higher for the fish reared in the 32°C group (158.57 g) followed by the 28°C group (138.25 g), while the lowest weight gain was observed in the 24°C group (116.98 g). The FCR was significantly lower in the 32°C group (1.62) as compared to 28 (1.8) and 24°C (1.85) groups. Based on the results obtained from these preliminary studies (experiment I and II), sobaity seabream can attain better growth performance, FCR and PER at 32°C in the Red Sea by feeding commercial diet 2.

**Keywords :** *Sparidentex hasta*, nutrition, FCR, Red Sea, growth performance

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