The investigation of food composition and the effects of season, sex, maturity and length on Gastro-somatic index of Queen fish in the Northwest of Persian Gulf (Khuzestan waters)

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Abstract

The diet of *Scomberoides commersonnianus*, a commercially important fish of Carangidae, has not been investigated in Iran. In this study, 563 fish of *Scomberoides commersonnianu* type were caught in Khuzestan waters during fifteen months of sampling from Aban, 1390 to Dey, 1391. In the present study, the gastro-somatic index and food composition of this fish were examined during the fifteen months in Khuzestan waters. The effects of season, length, sex and maturity of the fish on the gastro-somatic index were assessed. This index was also adopted in the determination of feeding intensity. The results showed that feeding intensity was similar in both sexes. There was a significant difference among the seasons ($p< 0.05$), except for the one between spring and summer ($p>0.05$). Furthermore, feeding intensity in cool seasons (fall and winter) exceeded that of warm seasons (spring and summer). Also, the lowest level of feeding intensity was observed in spring (2.074), but it reached the maximum rate during winter (3.379). It was also found that feeding intensity rate among small fish was more than large ones and the gastro-somatic index increased with the decrease in length. The results indicated that this fish had a selective behavior in choosing its food items and fish and shrimp constituted the primary and secondary types of food, respectively. The fish which belong to Clupeidae, Carangidae, Mullidae, Leiognathidae, Pristigasteridae, Teraponidae families were found in *S.commersonnianus* stomach.

Keywords: *Scomberoides commersonnianus*, gastro-somatic index, food composition, Talang queenfish.