Mercury amount in muscle tissue of *Argyrosomus hololepidotus* captured from the west – northern waters of the Persian Gulf at different age groups

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Abstract
This study was performed for comparing the accumulation of heavy metal mercury in fish muscle tissue of the Southern meager (*Argyrosomus hololepidotus*) and its correlation with age, total length and total weight in the Persian Gulf waters in 1391. Sampling of fishing stations located in Abadan and Hendijan carried out during the months of March to November. 80 samples were collected in 5 age groups. After sampling of muscle, compound samples were obtained according to standard methods Moopam. Mixed samples were wet-chemical digestion method and Concentration of mercury by atomic absorption was performed with a Perkin Elmer 4100 Model. Mean concentrations of mercury in the southern meager muscle tissue were 84.86±19.92 µg/kg dry weight ($P<0.05$). The highest mercury concentration among different age groups was 118.5±11.61 µg/kg dry weight at age 8-10 - year - old. There was a positive correlation between concentration of mercury with total length and total weight without significant difference ($P\geq0.05$). The relationship between mercury concentration and age was positive and significant (P-value = 0.0032). Average metal concentrations in flesh tissues was lower than WHO and the FDA.

Keywords: Heavy metal, Southern meager, *Argyrosomus hololepidotus*, Persian Gulf, Muscle tissue.