

## The concentrations of copper, zinc and iron in muscle and liver tissues of *Scomberomorus commerson* and *Scomberomorus guttatus* in the north of Persian Gulf (autumn and winter)

Razagh Obeidi<sup>1</sup>

Abdul Hossein Doulah<sup>2\*</sup>

Hanieh Ziaei Nourbakhsh<sup>3</sup>

Mitra Ravardshiri<sup>4</sup>

Elham Faghinezhad<sup>5</sup>

1,4,5. Young Researchers and Elite Club, Bushehr Branch, Islamic Azad University, Bushehr, Iran

2. Assistant Professor, Cellular and Molecular Biology Department, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

3. Assistant Professor, Department of Fisheries Sciences, Bushehr Branch, Islamic Azad University, Bushehr, Iran

\*Corresponding author:

h\_doulah@yahoo.com

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### Abstract

The present research was undertaken in order to measure the concentrations of heavy metals in tissues of the *Scomberomorus commerson* and *Scomberomorus guttatus* in Bushehr seaport. 20 samples of *S. commerson* and 20 samples of *S. guttatus* were catted randomly from Bushehr seaport. After biometry of fish, the tissue samples were taken from muscles and liver and chemical digestion of the samples were carried out based on MOOPAM, and then levels of heavy metals in tissues were measured. Based on the results, there was a significant difference between the mean of Cu, Zn and Fe metals in the muscle and liver tissues of *S. commerson* and *S. guttatus* ( $P < 0.05$ ). A comparison between the research results and international standards revealed that the concentrations of the Cu and Zn heavy metals in the muscle and liver tissues of the *S. commerson* and *S. guttatus* in the study area were lower than the WHO, FAO, NHMRC, and UK (MAFF) approved standard levels. However, the concentration of Fe was higher than the FDA-approved level. Hence, these two species will not pose severe general health risks to human consumers.

**Keywords:** Heavy metals, Muscle, Liver, Tuna fish, Bushehr seaport.