

# MEASUREMENT OF HEAVY METALS IN MUSCLES OF WILD *Cyprinus carpio* IN CASPIAN SEA COAST; GUILAN PROVINCE, IRAN

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Heavy metals, as one of the main groups of pollutants in aquatic ecosystems, enter aquatic environments as a result of natural activities and also mainly as a result of human activities, and may accumulate in the bodies of aquatic organisms, including fish (esp. food fish), and pose a potential risk for health, ecosystem and living organisms are considered.

In this study, with the aim of investigating the amount of heavy metals lead, zinc, cadmium and mercury in wild *Cyprinus carpio* of Caspian sea coast; Guilan province, Iran province and investigating the effect of their weight and size on the level of pollution with these heavy metals and also investigating the level of contamination with the aforementioned heavy metals in different areas of the Guilan province, Twenty-four samples (pectoral muscles) of common wild carp were completely-random collected from fish retail center in six stations (Astara, Hashtpar, Anzali, Rasht, Kalachai and Kiashahr) of Guilan province.

The results of this study showed that the amount of heavy metals lead, zinc, cadmium and mercury in the studied samples are lower than the permissible limit stated in FAO/WHO, also other results obtained from this study showed that there is no significant difference between the weights, total lengths and standard lengths of the studied common carps between the two sexes, the sampling stations and the average amount of metals obtained in the tests. ( $P>0.05$ ).

TABLE. Heavy metals' (zinc, cadmium, lead and mercury) some indices in wild common carp

Index	Zn	Cd	Pb	Hg
No. Samples	24	24	24	24
Mean	24.73	0.003	0.025	0.084
Median	21.79	0.003	0.025	0.0495
Min.	9.46	0.003	0.025	0.027
Max.	59.24	0.004	0.30	0.282

**Keywords:** wild *Cyprinus carpio*, heavy metals, lead, zinc, cadmium, mercury