



EFFECTS OF PROCESSING ON ESSENTIAL AND HEAVY METAL COMPOSITION OF POPULAR FISH SPECIES CONSUMED IN THE KARACHI COAST OF THE ARABIAN SEA

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<https://doi.org/10.34302/crpjfst/2019.11.2.11>

Article history:

Received:

24 November 2018

Accepted:

15 May 2019

Keywords:

Acanthopagrus arabicus;

Lethrinus nebulosus;

Pampus argenteus;

Arabian Gulf;

Heavy metal.

ABSTRACT

This study analyzed three popular species of fish in raw and cooked (curried and fried) form, commonly consumed in Karachi coast and overall in Pakistan for their essential and heavy metal composition. The outcomes revealed that the content of toxic heavy metal (Hg) was observed in all raw samples particularly in raw Mulla fish (*Lethrinus nebulosus*) but heat treatment by frying and curry preparation of fish led to a decrease of Hg content in the muscles of all selected species especially in *L. nebulosus* after frying. While in *Acanthopagrus arabicus* Hg content was below detectable level. In this study the levels of Cd and Cr were observed at below detectable levels in all selected species except in *A. arabicus* where Cd tend to decrease after frying while the content of Cr slightly increase after both types of cooking. In the present study the essential metals namely Fe, Zn, Cu and Mn tend to increase in all fin fishes after cooking, especially in curried form. The above-mentioned result determined that these customary culinary practices of fish have an influence on their essential and heavy metal constituents. Furthermore, eating variety of fin fish species by applying different procedures of cooking is the finest attempt to attain better-quality of dietetic ways, minimizing mercury revelation and increasing chance to obtain vital elements.
