

Determination of heavy metals (Cd, Cr, Pb, Ni) in edible tissues of Lutjans Coccineus and TigeratooH Croaker In the persian Gulf-2003

Abstract

Background&Objective: Heavy metals have a high resistance against degradation. So their amounts in human food chain, such as fish, may be increased even several times either in water or air, due to bioaccumulation. These amounts are potentially dangerous to human. This study was done to determin of heavy metals in edible tissue of Lutjans Coccineus and TigeratooH Croaker in the Persian Gulf.

Materials&Methods: 60 samples of Lutjans Coccineus and TigeratooH Croaker were collected randomly after preparation and chemical digestion for trace elements determination. Pb, Cr, Cd and Ni were determined by flame atomic absorption in 2003.

Results: Average value of Pb, Cr, Cd and Ni in the edible tissues of two fish species, Lutjans Coccineus 0.442,0.333,0.063 and 0.322 and TigeratooH Croaker of were 0.48, 0.062, 0.064 and 0.48 ppm (dry weight basis), respectively.

Conclusion: Results indicated that the mean concentrations due to heavy metals in these two species were less than acceptable limit of WHO, but related concentrations of Pb, Ni, Cd and Cr in 27%, 25%, 8% and 3% of individual studied samples respectively were more than upper acceptable limit of WHO.

Key Words: Heavy metals- Fish – Persian Gulf

A.Shahryary (MSc)

Deputy of Health

Gorgan University of Medical Sciences

Corresponding Author:

A.Shahryary

E-mail: AL_shahryar@yahoo.com