

ABSTRACT

STUDY OF HEAVY METAL CONTENT OF LEAD (Pb) AND CADMIUM (Cd) ON FISH IN WATERS OF ESTUARY OF THE RIVER WAY KUALA BANDAR LAMPUNG

By

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Studied of distribution of heavy metals Pb and Cd in the sediment at the mouth of the river Way Kuala Bandar Lampung has been done. Determination of concentrations of metals Pb and Cd using by atomic absorption spectrophotometer (AAS) are four parameters validation method that is the limit of detection, precision, accuracy and linierity.

The concentration of heavy metals Pb on *Scatophagus argus* is $0.013 \pm 9.82 \times 10^{-10}$ ppm on meat, $0.006 \pm 2.26 \times 10^{-06}$ ppm on the gills and $0.029 \pm 2.86 \times 10^{-10}$ ppm on entrails they still came under the threshold of a defined raw Dirjen POM No. 03725/B/SK/VII/89 of 2.0 ppm. The concentration of heavy metals Cd in *Scatophagus argus* is $0.0010 \pm 1.80 \times 10^{-10}$ ppm on meat, $0.0014 \pm 4.25 \times 10^{-09}$ ppm on the gills and $0.0075 \pm 9.19 \times 10^{-10}$ ppm on entrails. They still came under the threshold of a defined raw Dirjen POM No. 03725/B/SK/VII/89 that is equal to 0.2 ppm.

A relatively standard deviation (RSD) to metal Pb on meat is $7.39 \times 10^{-4}\%$, on the gills is $3.566 \times 10^{-3}\%$ and on the entrails is $9.809 \times 10^{-5}\%$ and a relatively standard deviation (RSD) metal Cd over flesh is 0.168 % , on the gills is $2.96 \times 10^{-5}\%$ and on the entrails is $1.21 \times 10^{-4}\%$. The value of the accuracy wich is determined% recovery of Pb on meat , gills and the entrails successively are 80.03 % , 68.05 % and 65.82 % . The recory of metal Cd on meat, gills and entrails of *Scatophagus argus* are 78.68 % , 67.50 % and 66.83 % .

Key Words : *Scatophagus argus*, Pb, Cd, and Way Kuala