

Title : To Assay the Accumulated Heavy Metals in Hybrid Catfish Between *Clarias gariepinus* x *Clarias macrocephalus* from the Phitsanulok Municipal Market.

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The purpose of the study were i) to assess the accumulate heavy metals such as cadmium , lead and manganese in hybrid catfish between *Clarias gariepinus* x *Clarias macrocephalus* fish's tissue , livers and gills from the Phitsanulok municipal market. ii) Comparison of the accumulated heavy metals ; cadmium , lead and manganese in hybrid catfish between *Clarias gariepinus* x *Clarias macrocephalus* with the Thai Industrial Standard Institute.

The hybrid catfish between *Clarias gariepinus* x *Clarias macrocephalus* were collected from the Phitsanulok municipal market by random sampling from selling and specific length is 25 – 30 cm. The thirty samples of the tissue , livers and gills were dried in hot air oven Then the samples were passed the accumulated heavy metals process and assay by Atomic Absorption Spectrophotometry (AAS.) The conclusion are :

i) Cadmium in the fish's tissue and gills are lower than the detection -- limit . However , found cadmium at  $7.0273 \times 10^{-3}$  ppm. In the liver's tissue. In the tissue , livers and gills found lead is  $5.181 \times 10^{-3}$  , 0.055 and  $6.09 \times 10^{-2}$  ppm. Respectively . On the other hand, found manganese in the tissue , livers and gills is  $1.4066 \times 10^{-3}$  ,  $5.1355 \times 10^{-3}$  and 0.0202 ppm. respectively .

ii) The quantity of the heavy metals ; cadmium , lead and manganese in hybrid catfish between *Clarias gariepinus* x *Clarias macrocephalus* from the Phitsanulok municipal market were lower than the Thai Industrial Standard Institute. Except manganese in gills are higher than the Thai Industrial Standard Institute.