

**EVALUATION OF THE TOTAL MERCURY CONTAMINATION IN TAPAJÓS RIVER BASIN  
PART II. DIFFERENT FISH SPECIES FROM SANTARÉM, STATE OF PARÁ**

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Santarém is one of the largest cities in the Amazon region with 400000 inhabitants. Despite its distance from goldmining activities, it has several goldshops where the amalgamated gold is burned.

In this region, fish is largely consumed by the inhabitants. The fish, which absorb mercury either by feeding or by their gills, show biomagnification have a high mercury concentration.

The main objective of this work was to evaluate the total mercury concentration in the fish species consumed in the region and to compare the results with the toxic levels found in the literature. For this purpose, 10 different fish species were caught in different places in the river Tapajós, in the surroundings of the city of Santarém in the State of Pará. In each place ten samples of each species were sampled.

The analyses were performed by using a cold vapor atomic absorption technique and the results appraised by means of a statistical treatment involving descriptive analysis and linear regression.

It was found that the carnivorous species has a higher mercury content than the herbivorous, omnivorous and detritivorous species. The carnivorous species Sarda and Tucunaré presented a total mercury content above 500 ppb, which is the maximum permissible level for human consumption (WHO, 1976). Two carnivorous species were studied in detail: *Pygocentrus nattereri* (Piranha Caju) and *Cichla* sp (Tucunaré). For these species were found a good correlation between the fish weight and size with the total mercury content.

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