

## Mercury and Selenium Levels in Swordfish (*Xiphias gladius*) Fished in the Exclusive Economic Zone of the Republic of Seychelles

**Authors :** Stephanie Hollanda, Nathalie Bodin, Carine Churlaud, Paco Bustamante

**Abstract :** Total mercury (Hg), selenium (Se) and Hg-Se ratios were analyzed in the white muscle, liver and gonads of swordfish, in order to compare concentration between the different tissues and sex, and also the effect of size (fork length). The results show significant difference between tissue types, with the liver having the highest concentration of both Hg and Se. Positive significant correlations between moles of Hg and Se were obtained in the liver and white muscle, but no relationship was obtained in the gonads. No difference in the concentration of Hg and Se was obtained between the sexes in the tissue types, except for Hg in the gonads, which were found to be higher in males. Significant negative relationships were obtained when the Hg-Se ratio was plotted against fork length in all three tissue types.

**Keywords :** bioaccumulation, large pelagic fish, mercury, selenium, western Indian Ocean

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