

## Heavy metal concentrations in the threatened ray *Sympterygia acuta* in Southern Brazil

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Contamination by metals poses a considerable threat to elasmobranchs, mainly due to their usual apex predator status and trophic level in marine food webs. Despite this and the fact that they are a group with several threatened species, sharks and rays are globally consumed. In southern Brazil (SB), the threatened ray *Sympterygia acuta* is commonly captured illegally and/or incidentally in artisanal fisheries. Captured individuals are illegally sold in local markets and/or consumed by fishermen and their families. In the present study, the concentration of metals (mercury = Hg, cadmium = Cd, and lead = Pb) were evaluated in muscle samples of females (n = 14) and males (n = 16) of *S. acuta* captured by artisanal fishing in the municipality of Garopaba (Santa Catarina, SB). Results were compared with maximum accepted concentrations by the European Commission regulation. Metal concentrations (mg/kg) were similar in males (Hg:  $0.031 \pm 0.017$ ; Cd:  $0.11 \pm 0.13$ ; Pb:  $0.033 \pm 0.011$ ) and females (Hg:  $0.024 \pm 0.011$ ; Cd:  $0.057 \pm 0.06$ ; Pb:  $0.028 \pm 0.04$ ) (Mann-Whitney:  $p > 0.05$ ). In any sample, Hg and Pb concentrations did not exceed the maximum limits accepted by the European Commission (1.0 mg/kg and 0.3 mg/kg, respectively). However, samples of six males and eight females exceeded the maximum limit for Cd (0.05 mg/kg). Given that Cd is a toxic metal, this finding raises a concerning situation for the *S. acuta* conservation status and consumers of its meat.