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THE INFLUENCE OF HEAVY METALS ON GENETIC DIVERSITY OF *Ucides cordatus* (LINNAEUS, 1763) (BRACHYURA, UCIDIDAE), IN MANGROVES OF THE SÃO PAULO STATE, BRAZIL.

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In industrial areas, the pollution for heavy metals is a common reality, and estuarine regions are the most affected of all. Once reaching the rivers waters, these metals can easily settle in mangrove sediments, compromising its fauna and flora. However, there aren't many studies relating this kind of environmental impact at the molecular level. This study has the aim of seeking for differences on genetic diversity of the uçá-crab (*Ucides cordatus*), collected on brazilian mangroves from Juréia, Cubatão and São Vicente, utilizing the techniques of *Random Amplified Polymorphic DNA* (RAPD), and based on Cd, Pb, Cu, Cr and Hg concentrations, present in sediment and water samples. The improvement on the knowledge of *Ucides cordatus'* bioecology is crucial, for this is an overexploited species, because of its commercial importance, with low growth rates. The heavy metals analysis showed that Juréia had the smallest levels, followed by Cubatão, with São Vicente showing the highest levels. Similarly, molecular analysis using Nei's Genetic Distance and Nei & Li's Coefficient (based on Unweighted Pair-Group Arithmetic Average - UPGMA) showed biggest similarity between Juréia and Cubatão, with São Vicente in a different cluster. The results obtained with the current study suggest that RAPD is an important tool on the investigation of heavy metals effects above organisms, although it's important to emphasize that genetic diversity may be influenced by several factors beyond exposition to contamination itself.