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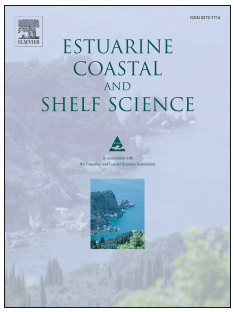

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Effects of environmental and water quality parameters on the functioning of copepod assemblages in tropical estuaries

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Abstract

We examined changes in the functioning of copepod assemblages with increasing pollution in estuaries, using sampling standardization of the salinity range to enable comparisons. Copepod assemblages were analyzed in four southeast Brazilian estuaries with different water quality levels and hydrodynamic characteristics over two years. We obtained mesozooplankton samples together with environmental and water quality parameters in the estuaries, every two months under predetermined salinities ranging from 15 to 25. The values of parameters, except species size, associated with the functioning of the copepod assemblages (biomass, productivity, and turnover rate) did not differ among estuaries. However, in the more polluted estuaries, the biomass and productivity of copepod assemblages of mesozooplankton were negatively correlated with concentration of pollution indicator parameters. Conversely, in the less polluted