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Fatty acids contents of *Acartia tonsa* (COPEPODA) in Peruvian upwelling system

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Variability of fatty acid content of *Acartia tonsa*, a dominant species of the coastal zone of the Peruvian upwelling system, was analyzed. Six months weekly sampling at a fixed station was conducted, towing a WP-2 net in the water column. Surface temperature, salinity, oxygen content, chlorophyll and phytoplankton composition were also taken. Samples were preserved by freezing at -80°C. The fatty acids were got from two replicates of 200 individuals in each sampling with a gas chromatography.

Results showed the presence of eleven fatty acids: 3 saturates (14:0, 16:0, 18:0), 3 mono-unsaturated -MUFA- (16:1n-7, 18:1n-7, 18:1n-9) and 5 poly-unsaturated fatty acids -PUFA- (18:2n-6, 18:3n3, 18:4n-3, 20:5n-3(EPA), 22:6n-3(DHA)). The PUFA were more than 60% of the total, 27-35% saturated and 1,75% - 9% were MUFA. Temporal variability of PUFA in relation to phytoplankton composition and chlorophyll content were also analyzed and oceanographic conditions.

Keywords: fatty acids content, Peruvian upwelling system, *Acartia tonsa*.

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