



EFFECT OF ANTIBIOTIC USE ON THE LIPID AND FATTY ACID COMPOSITION OF ROTIFER *Brachionus plicatilis*

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Rotifer *Brachionus plicatilis* is one of the most used live prey utilized in marine fish aquaculture. Since the rotifer lipid content and fatty acid profile are not always the most indicated to cover marine larval fish requirements, it is a common procedure to subject the rotifer to different enrichment methods. During this enrichment period an important increase in the amount of bacterial colonies in the rotifer culture has been pointed out by several authors. This bacterial growth use to finish in the larval rearing tanks with the rotifers. A common procedure to prevent negative effects of bacteria on larval growth or survival is to subject the rotifers to antibiotic treatment. The aim of the present work was to determine the possible effect of antibiotic treatment on the lipid and fatty acid, composition of rotifer *Brachionus plicatilis* under different enrichment conditions, conditioning their value as live prey.

Brachionus plicatilis rotifers cultured on baker's yeast were used for the assays, the antibiotic for the treatment was chloranphenicol and the commercial lipid emulsion utilized for enrichments was Selco. Six different treatments, including a negative control, were tested by triplicate. Rotifers were enriched for 21 h, treated with antibiotic during the whole period or in the last three hours.

Results showed that under the conditions tested, the antibiotic treatment preserve or increase the total lipid content of rotifers. The total n-3 HUFA content, as well as docosahexaenoic (DHA) and eicosapentaenoic (EPA) contents decreased ($p < 0.05$) as percentage of total fatty acid in the rotifers enriched under antibiotic treatment respect those normally enriched, but these differences disappeared when the values were considered as percentage of dry weight. The DHA/EPA ratio, also considered as important in larval fish nutrition, remained unchanged in all the treatments.