FATTY ACID COMPOSITION OF EARLY STAGES OF *DIPLODUS SARGUS* (L., 1758) AND DIETS

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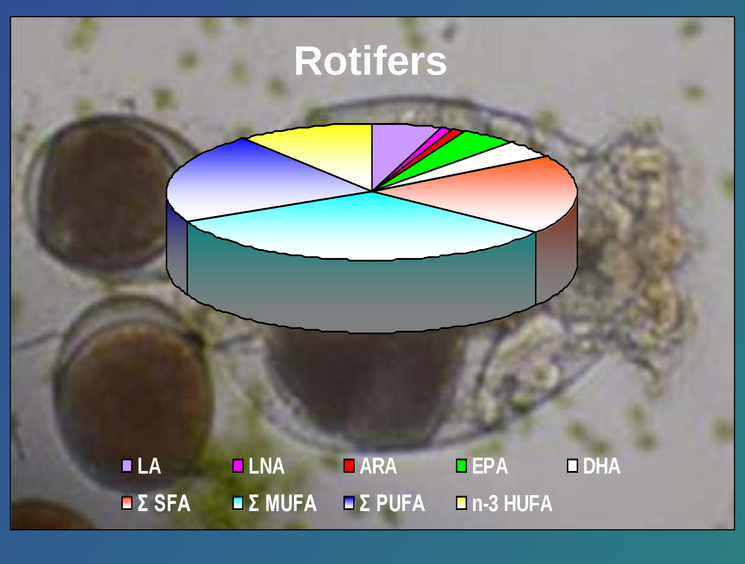
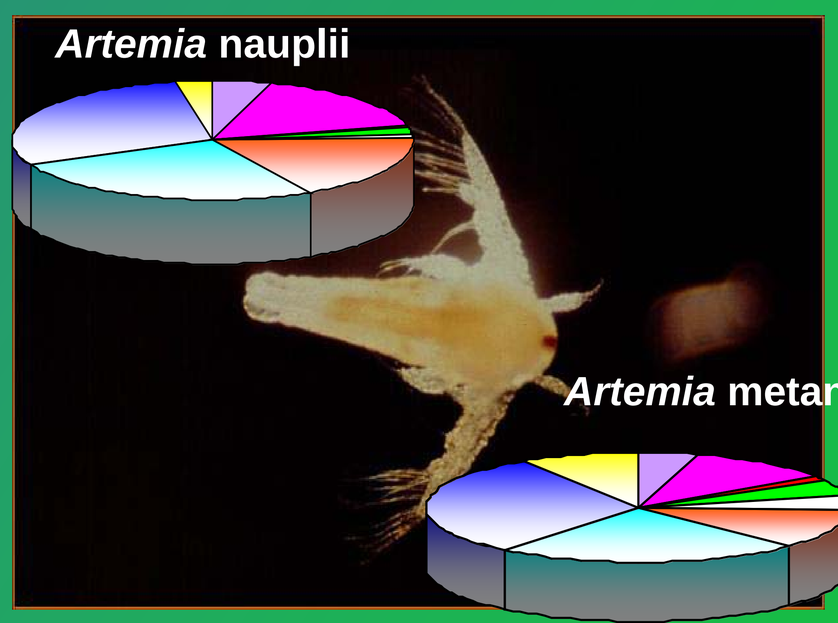
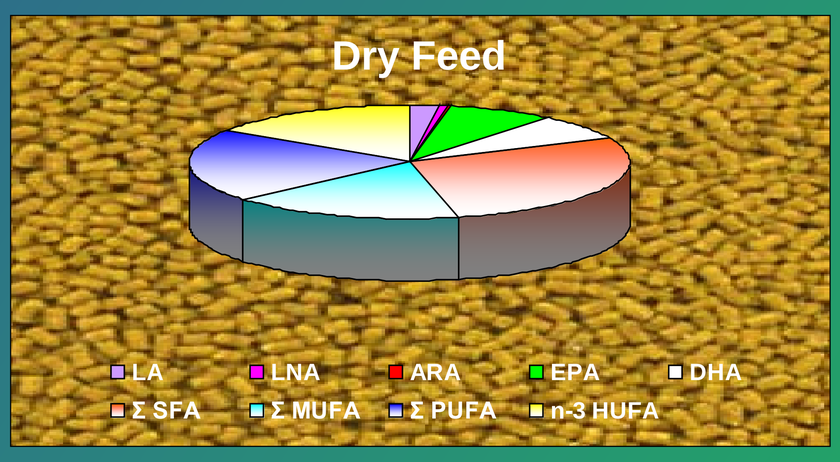
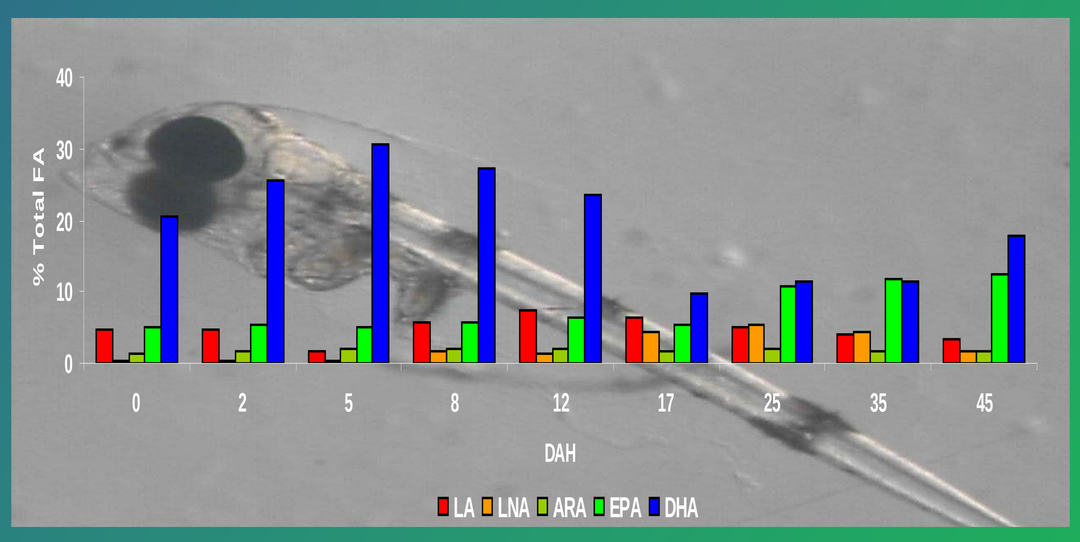
Diplodus sargus **is a marine species with potential interest to fish farming in the Mediterranean due to its high market price and demand.** ***D. sargus*** **larval rearing has promising survival rates but has some severe constraints. These problems might be related to an inadequate feeding protocol as there is a lack of information regarding** ***D. sargus*** **nutrition requirements. The fatty acid profile of** ***D. sargus*** **larvae through ontogeny was compared with the diet.**

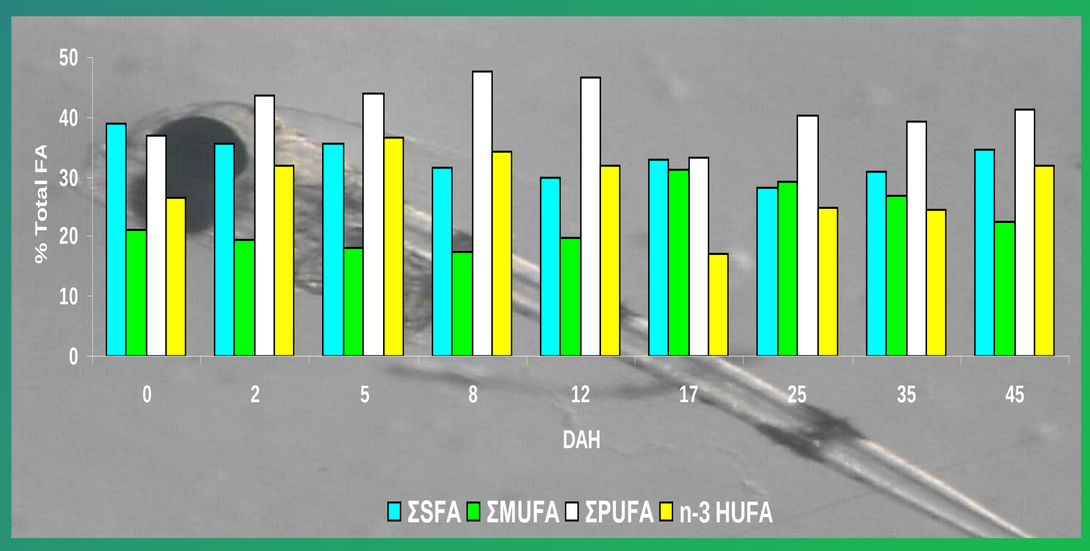
Feeding protocol consisted on *Brachionus plicatilis* from 3 to 20 days after hatched (DAH). At day 12, larvae started having *Artemia* nauplii and then *Artemia* metanauplii from 17DAH until 39DAH. Dry feed was given from day 25 until the end of the experiment (45DAH).











Fatty acid composition (% Total FA) of white sea bream *(D. sargus)* larvae

Larval fatty acid profiles generally seemed to reflect diet fatty acid composition as well as preferential use of certain fatty acid on different larval stages.

During the endogenous phase (0 to 8DAH), the changes in the fatty acids profiles probably reflect their utilization by the larvae. Thus, SFA and MUFA decreased their contents during this period, these fatty acids, mainly those with shortest chains, are probably used as the dominant substrate for energy production from hatching to first days of larval feeding.

Results pointing out that DHA, EPA and ARA are spared during the depletion of the yolk sac for biological function.

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