

Seasonal Changes in the Fatty Acid Profile of Muscle Lipid of Cultured Meagre (*Argyrosomus regius*).

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The meagre (*Argyrosomus regius*) is a fish species recently introduced in marine fish culture practices with promising results. One of the main quality index in farmed fish for human consumption is the amount and fatty acid profile of the lipids stored in the main edible fraction, the muscle. In this study, juvenile meagre were sampled at intervals during their first year of stay in an off-shore cages-based fish-farm (Algeciras Bay, Southern of Spain).

Analytical data showed that saturated and monounsaturated fatty acids (SFAs and MUFAs respectively) represented in any case approximately 30% each of total muscle lipids at the beginning, reaching total polyunsaturated ones (PUFAs) a figure close to 40%. Among these, the most abundant were those of the *n*-3 series while *n*-7 were the more scarce, being intermediate the levels of both *n*-6 and *n*-9 series.

SFA, MUFA and PUFA levels were studied all through several months. During the whole period, total *n*-3 PUFA muscle content decreased as *n*-6 PUFA increased (as a consequence, *n*-3/*n*-6 ratio decreased). All these changes trended to reproduce in fish muscle the fatty acid pattern of the commercial food utilized. So, it seems that an interaction among dietary and environmental factors (mainly temperature) was in operation, during the period considered, for determining the fatty acids profile of cultured meagre muscle.