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FATTY ACID COMPOSITION OF EGGS AND FED AND STARVED LARVAE OF RED PORGY (*Pagrus pagrus* L.)

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Several studies have shown that is possible to obtain basic information about the essential fatty acids needs from fatty acid composition of fish eggs, as well as the fatty acid conservation and loss patterns during the early larval development. In order to determine the effect of starvation on fatty acid profile during early red porgy (*Pagrus pagrus* L.) larval development the following experience was carried out. Red porgy larvae were reared from hatch to seven day-old larvae in two groups. One group was fed with rotifers (enriched with *Nannochloropsys sp.* and marine fish oil emulsion) while the other one grew on starvation. The two groups were sampled daily from third (open mouth day) to seventh day. Eggs and larval lipid classes were determined by HPTLC, the fatty acid composition of total, neutral and polar lipid fractions were analyzed by gas chromatography. Different fatty acid conservation and loss patterns were evidenced on the lipid fractions under food deprivation conditions. Certain n-3 series fatty acids seem to be preserved in the polar lipids fraction during starvation. This strategy is discussed in relation with the probable requirements of these fatty acids for normal red porgy larval development.