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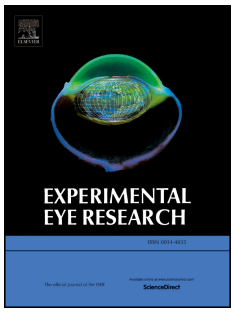

Impact of temperature on sea bass, *Dicentrarchus labrax,* retina: Fatty acids composition, expression of rhodopsin and enzymes of the lipid and melatonin metabolism

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Impact of temperature on sea bass, *Dicentrarchus labrax,* retina: fatty acids composition, expression of rhodopsin and enzymes of the lipid and melatonin metabolism

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Highlights

- Temperature modulates lipids content, distribution and synthesis in the sea bass retina: cold increases total lipids and ELOVL5 and FADS2 mRNA abundance.
- Temperature modulates abundance of PLA2 mRNA, in a manner different than for the synthesis enzymes, suggesting it modulates the production of lipid derived second messengers.
- Temperature modulates abundance of rhodopsin mRNA in a manner similar to its effects on lipid synthesis enzymes thus adding to previous evidence that it modulates phototransduction.
- Temperature does not modulate mRNA abundance of melatonin synthesis enzymes suggesting it affects melatonin through modulation of enzymes activities only.