

LIFE-CYCLE OF THE MEDITERRANEAN CALCAREOUS SPONGE *PETROBIONA MASSILIANA*: HISTOLOGICAL VARIATIONS OF A POTENTIAL CLIMATE CHANGES RECORDER

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In addition to its calcareous spicules, *Petrobiona massiliana*, a hypercalcified sponge living in dark submarine caves of the Mediterranean Sea, produces a massive calcium carbonate basal skeleton that could be used as a potential local recorder of climate changes. In order to validate such a natural archive, it is necessary to define all physiological factors that could interfere with its biomineralization processes. Seasonal reproduction, inducing profound disorganizations in the aquiferous system of *Petrobiona massiliana*, is proposed to be a predominant factor affecting activities of the sponge and therefore its growth.