

Short update of the results of the project: Nutritional physiology and stress of the first life stages of common octopus (*Octopus vulgaris*)-OCTOPHYS.

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Summary

The culture of the common octopus (*Octopus vulgaris*) is hindered by high mortalities encountered during its paralarval rearing, although at present, the specific causes for the high mortalities observed remain unidentified. This research aims at gathering a better understanding of the basic biology and physiology of the paralarvae, through a multidisciplinary and integrated approach, which includes the study of the physiology of nutrition and the evaluation of the stress condition. The objectives proposed are based on a strong zootechnical input and foresee the use of biometric, biochemical, enzymatic, molecular biology and proteomic tools, pointing towards the ultimate optimization of the paralarval condition and survival. They also include the study of the nutritionally-derived stress and the selection of biomarkers capable of its detection and quantification.