

Effect of incubation temperature on the viability and digestive physiology of common octopus (*Octopus vulgaris*) paralarvae.

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The high paralarvae mortality during larval development in the common octopus (*Octopus vulgaris*) due to nutritional and management issues maintains this production at low profitable levels. Previous studies have dealt with the effect of temperature in embryo development, suggesting the beneficial effect of lower temperatures on this process, probably due to its impact on the metabolic pathways. However, these studies are restricted to embryonic development, hatchlings or paralarvae under starvation, and there is no information on how this process can affect paralarval survival and growth at long-term experiments. In the present study, the effect of different incubation temperatures (16 and 21 °C) in pre-hatching stages (embryos) was analysed on paralarval viability and digestive enzymatic activities in 0 and 14 days post hatchling. In newly hatched paralarvae the effect of incubation temperature on dry weight and total length appears to depend on the broodstock female origin. However, no significant effects of incubation temperature on paralarvae viability were detected after 14 days of culture. Neither the incubation temperature nor the female seems to affect the digestive enzymatic capacity of the newly hatched paralarvae. After 14 days of culture, the incubation temperature may be exerting an effect on activity over time for acid proteases and trypsin activities, but these effects depended on the broodstock female origin. The absence of significant changes suggests that the range of embryos incubation temperatures tested appear to be no significant effects on viability and digestive physiology in *Octopus vulgaris* paralarvae.