

***OCTOPUS VULGARIS* (CEPHALOPODA: OCTOPODIDAE) GAMETOGENESES: A HISTOLOGICAL APPROACH TO THE VERIFICATION OF THE MACROSCOPIC MATURITY SCALES.**

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Knowledge of the maturation process is vital to the understanding of reproduction biology and the relationship between spawning stock and recruitment. There are various gonadal maturity scales for cephalopods. A correct and widely applicable scale would be of great value for studying cephalopod life cycles. The purpose of the present study was to validate, using histological methods, the macroscopic maturity scale used for *Octopus vulgaris*. The changes in testes and ovaries during sexual maturation permitted the determination of six different histological stages for spermatogenesis and seven for oogenesis. The relative frequencies of these stages in each of the categories of the maturity scale, were calculated. By comparing these frequencies along with the macro-morphological changes, it was possible to follow closely the single cycle development of the gonads. The study also provided evidence to suggest that *Octopus vulgaris* is an intermittant spawner.