THE REPRODUCTIVE CYCLE OF THE SEA URCHIN *PARACENTROTUS LIVIDUS* IN THE CENTRAL AEGEAN REGION

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Aspects of the reproductive biology in the common Atlanto-Mediterranean echinoid *Paracentrotus lividus* (Lamarck, 1816) where investigated in the Pagasitikos gulf. In order to monitor the reproduction of the local population, a two-year survey (November 2008 – November 2010) was conducted in two locations on the coastline of Pagasitikos gulf. 40 individuals were randomly collected on a monthly basis from each site by SCUBA diving. The Gonadosomatic Index (GSI) was compared with the Maturity Index (MI), water temperature and size classes of the population, whereas the Hematoxylin – Eosin regressive stain was used to identify the sex and maturity stage. The GSI and MI seem to have a negative correlation with water temperature, with a clear decline of both indices during the warmest months of the year. The highest values of the GSI were found at the size class 60-65 mm. The reproductive cycle was estimated according to the maturity of the females with a total of five development stages described. It appears that the species' reproductive cycle follows an annual pattern, with a single spawning event occurring in late spring or early summer (April – June).