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Environmental History on a Central Mediterranean Island

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Through the PaleoMed project a number of cores have been taken from key locations on the Maltese Islands with the aim of establishing various aspects related to the archipelago's historical environment. A multi-disciplinary team have been investigating a number of bodies of evidence including sediments, charcoal and shells. Through this poster I will present the results from pollen samples extracted from a section of one of the cores. The core, taken from Burmarrad, has a section that has been carbon dated to 7200-3200BP. Preliminary results from this site, one of the largest flood plains on Malta, will provide an indication of the local vegetation during this chronological window.

Pollen was extracted from sediment deposits following the classical treatment method (eg Moore et al., 1990). Furthermore, identification was undertaken through the use of pollen atlases of Europe and North Africa (Reille, 1992, 1995, 1998) and Beug (2004) along with IMBE's international pollen reference collection. Pollen percentages were calculated in TILIA and the pollen percentage diagram constructed using TGView software (Grimm 2004, 2005).

Current results indicate that prior to 7000BP there was a high percentage of aquatic plants, while tree and shrub counts were low. At 6900BP a large increase in Pistacia pollen is recorded, with moderate increase in Plantago (especially lanceolata), Asphodelus, Dinaflagelates and Mirco Foraminifera. At this time there is also a reduction in Cichorioideae & Charcoal in the section. A similar increase in Pistacia at around this time has also been recorded from another core in Burmarrad (Djamali et al., 2012) and in southern Sicily (Tinner et al., 2009). The date of this increase corresponds to the first recorded settlement on the Maltese Islands (circa 5500BC) as well as the climatic optimum of forest cover in the Mediterranean region (Noti et al., 2009).