

3rd International Congress on

Science and Technology for the safeguard of Cultural Heritage in the Mediterranean Basin



 *9A/ke*
**Consiglio Nazionale
delle Ricerche
Italia**

9-14 July 2001, Alcalá de Henares SPAIN



**Universidad de Alcalá
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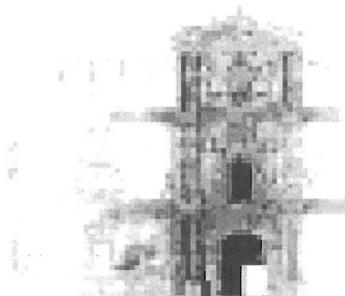
CONSIGLIO NAZIONALE
DE LA RICERCA
ITALIA



UNIVERSIDAD DE ALCALÁ
ESPAÑA

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3^{er} Congreso Internacional
“Ciencia y Tecnología Aplicada a la Protección del
**Patrimonio Cultural en la
Cuenca Mediterránea”**
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GREEN CULTURAL HERITAGE IN EMILIA ROMAGNA - NORTHERN ITALY - 1: CASTANEA SATIVA MILL. (HOLOCENE POLLEN, FRUIT AND WOOD/CHARCOAL)

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Inside the CNR's project "Cultural Heritage-Biological Archives", our research ("Plants used by man <which, where, how, when?>") focuses on the history of cultivated woody plants in Emilia Romagna, based on pollen and macrofossils. This paper deals with the history of *Castanea sativa* Miller, one of the most important cultivated tree of the region, currently well spread in the hills and low mountains, in anthropic chestnut woods. Holocene pollen and macrofossils of *Castanea* from many sites were reviewed and divided into six chronological phases (Preboreal, Boreal, Atlantic, Subboreal, Subatlantic and Recent = the last fifty years) and three altitudinal belts (Mountains, Hills, Plain). *Castanea* pollen was recorded in 131 sites, from the Preboreal to Recent; woods/charcoals in 7 (Subboreal-Subatlantic) and fruits in 1 Subatlantic site. *Castanea* pollen was already present in the Preboreal, in the Hills. In the Boreal, it was a little more widespread. In the Atlantic, it was in 46% of sites in low percentages (regional mean = 0.3% on AP+NAP), suggesting an anthropic protection and spreading. In the Subboreal, besides pollen (60% of sites; 0.8%), wood/charcoal were found. In the Subatlantic, besides pollen explosion (79% of sites; 5.2%) wood/charcoal and fruits were recorded, the latter in Ferrara - Medieval age. In the Recent, pollen was almost ubiquitous (99% of sites; 6%). Altogether, pollen suggested that chestnut had survived in our region during the last glacial in some refuge stations in the Hills, and soon was considered by humans as a resource. Macrofossils provided evidence for its use as food, timber and fire in the Subboreal-Subatlantic. The cultural heritage about chestnut appears to have its roots far back in our region, possibly in the Atlantic.

Work founded by CNR (Progetto Finalizzato Beni Culturali - Presidente: A. Guarino, Direttore: Prof. U. Baldini - Sottoprogetto 4, Coordinatore: Prof. G. De Stefano; Unità Operativa: C.A.Accorsi).