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Programme and abstracts

THE POTENTIAL OF BOTANICAL GARDENS TO SHOW POLLEN BIODIVERSITY-THE PROJECT IN MODENA: 1. THE POLLEN FLORA OF THE GARDEN

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Botanical Gardens, being Museums made of living plants and laboratories, are the main places where plant biodiversity in its many forms can be managed and shown. Pollen grains offer an attractive display of biodiversity due to their microscopic size, huge number, great morphological variety consistent with their systematic / phylogenetic position and almost ubiquitous spread in space and time. In the Botanical Garden of Modena University, where palynologists have been working for more then twenty-five years, a multifaceted project has been set up to acquaint citizens with pollen biodiversity, by exploiting the know-how of the local laboratory in several fields of Palynology (e.g. Aero-, Archaeo-, Bryo-, Geo-, Melitto-, Morpho-, Pharmaco-Palynology). This paper concerns Morphopalynology and more precisely the "Pollen Flora of the Garden", i.e. the study and exhibition of morphological characters of pollen of the plants growing in it. The following work has been undertaken so far: 1) The setting up of the Garden Pollen type Collection, following the rules recently adopted for the educational section of the local Collection (Torri & Al., 2005); 2) Morphological analyses and descriptions of pollen types of the Garden, following the methods of the Italian Pollen Flora (e.g. Accorsi, 1985), starting with woody species, especially Conifers; 3) Preparation of pollen protocols and materials for educational events. To show what we have done so far, we report: 1) the status of the Garden Pollen Collection (number and list of pollen species collected, stored dried, acetolyzed, mounted in slides, and species that can be swapped); 2) the status of the Garden Pollen Flora (list of the pollen species described); 3) examples of the pollen educational process which have been in part already successfully employed and in part planned to be used during exhibitions for citizens, students from primary to secondary school and tourists (pollen dust jars, 3D pollen models, big and small round panels with high magnification pollen photos hung from trees, pollen trips throughout the Garden, from microscope to plants.

References:

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