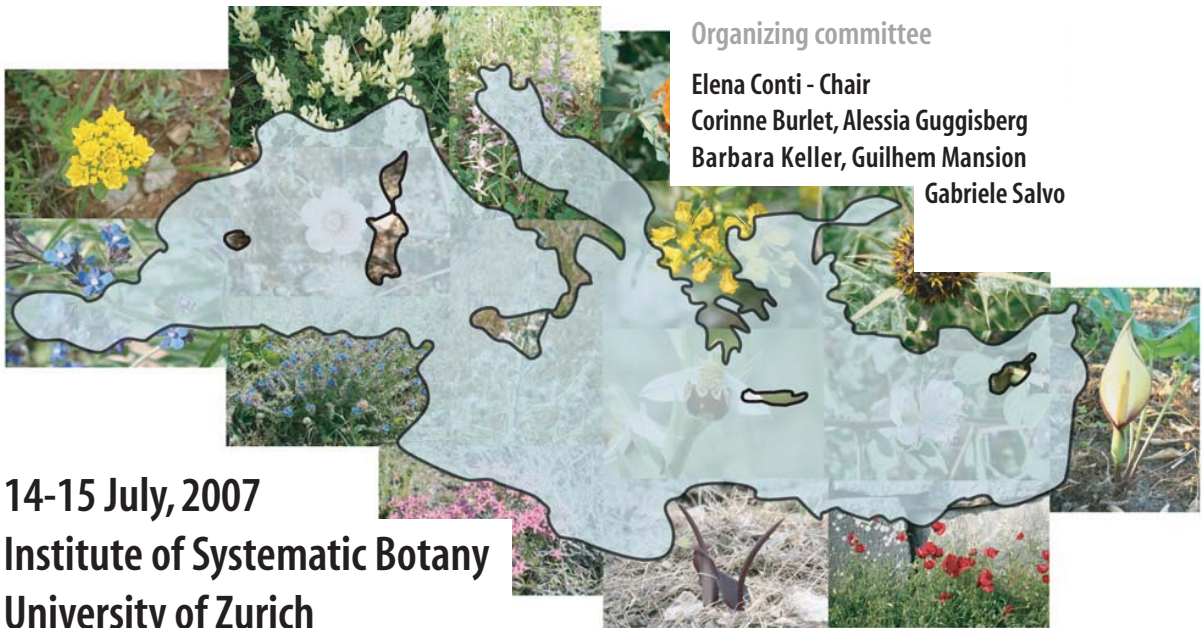


Origin and Evolution of Biota in Mediterranean Climate Zones

an Integrative Vision



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P22. EARLY POST FIRE ESTABLISHMENT OF ANNUAL PLANT SPECIES IN RELATION TO FIRE REGIME: A FUNCTIONAL GROUP APPROACH

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A hierarchical approach was applied for the classification of Mediterranean plant taxa into functional groups in relation to their long-term post-fire patterns of performance. Species were grouped according to their growth form, regeneration mode, persistence and dispersal. Other specific competitive advantages such as N-fixation ability were also explored, resulting in the identification of 29 different functional groups. Annuals are known to pose a key-role during the first few post fire years. Due to the increased establishment of annual species after fire, Mediterranean plant communities show their maximum species richness in the first few years after the fire event. Six different functional groups of annuals have been identified in the current classification. In the present study, the effect of fire severity, fire interval and distance from **unburned** patches on the relative richness of the different annual functional groups has been investigated by means of direct gradient analysis (CCA). Data derived from three different fire events, where stands of different fire characteristics had been sampled during the first post-fire year. The strongest relations have been revealed between taxa forming a permanent soil seed bank and high fire severity and between anemochorous taxa and short distance from unburned stands.