



Conference Abstract

Functional landscape of Sila Grande (Calabria, Italy): Vegetation dynamism and synphytosociology

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Abstract

The aim of this presentation is to present practical problems related to the land management and biodiversity conservation, using methods of landscape analysis through approaches of synphytosociology. The study area was Sila Grande (Calabria, S Italy), for which an exhaustive bibliographic analysis was carried out and cartographic materials were collected. Spatial data and different themes were organized in a Geographic Information System (GIS), proceeding with a first segmentation (environmental patches identification) based on geomorphologic, geological land use, bioclimatic, etc. In addition, an analysis of mountainous plant communities was carried out, based on 1047 phytosociological relevés (554 original) in order to investigate paleo-geographic, ecological and anthropic factors that influence floral and vegetation diversity.

Data from literature and field studies (1998–2013) have been critically analyzed in order to clarify the *syntaxonomic* position of the main vegetation types. Twenty-six new *syntaxa* (associations and subassociations) are proposed and an updated *syntaxonomic* scheme is presented.

Quercus-Fagetum and *Molinio-Arrhenatheretum* are the most represented classes in the area due to the bioclimatic factors. Wet communities (*Isoetes-Nanojuncetum*, *Nardetum strictae*, *Scheuchzeria-Caricetum fuscae*, *Montio-Cardaminetum* and *Littorelletum uniflorae*) have a significant biogeographical importance due to a rich group of boreal species. This “Nordic

imprint" of the flora, vegetation and landscape is of special interest and its peculiarities are analyzed from ecological and biogeographical point of view. Mediterranean and sub-Mediterranean elements prevail in the dry grasslands and shrublands.

Some problems about the dynamics of vegetation are discussed such as the role of black pine communities and their relations with beech forests, trying also to provide clues for conservation strategies and management.

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