Sp4. Poster

Methodology to collect and store information about the historical distribution of vegetation and human land uses

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The LTER network aims to assess the structural and functional responses of ecosystems to the impact of environmental and socioeconomic variables. In this context, events and anthropic uses occurring in ecosystems in the past could have an important impact to explain its current structure and function. It is therefore important to gather information of different temporal landmarks on the past about events, uses of forest resources and forestry actions. We present a novel methodology developed to collect spatial and temporal explicit information regarding several ancient milestones. The information collected is very diverse and presents differences in spatial and temporal scale, and different geometry type: spatial distribution of land uses, linear elements (irrigation channels, etc.), poligonal discrete events (wildfire), continuous events (natural succession), etc. We designed a flexible data model to store heterogeneous information on land use changes with a temporal and spatial component. This model has been validated gathering information from different historical sources: cadastral data, forest inventories, gazetteers and other administrative documents in Sierra Nevada mountains (south Spain). We compiled a database with information from 1748 to the present time. The created database allows the creation of queries to assess changes in land use between two dates.