Spatial structure of *Fabiana imbricata* shrublands in the NW Patagonia

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One way to reflect accurately on a particular geographic region the spatial distribution of a population, community or ecological phenomenon (of discrete nature) is to represent in a cartographic the elements that form part of it. In real ecosystem non-random distribution in space is the most common due individuals and populations live in heterogeneous habitats in space and time. The study of patterns related to spatial structures is part of the discipline called "Spatial Analysis", which contains a large set of techniques that have as aim the quantitative analysis of spatially explicit data. The importance of taking into account the space in the ecology is due to this can determine how spatial structure influences ecological processes and, conversely, how these processes can affect the structure. The analysis of the spatial point pattern tries to answer questions like: What is the spatial pattern of individuals or patches of a species? Is there spatial interaction between two or more species? What is the scale at which take place these patterns? Observed patterns are generated by an ecological process or are due to the heterogeneous environment? What are the characteristics or attributes of the species associated with the spatial pattern? The advance of information technology has allowed the spatial simulation models to compare real and simulated patterns and then determine the pattern found in the system. Geographic information technologies (remote sensing, GPS and GIS) have facilitated the real data collection and processing since allows the precise location of individuals and populations. The Patagonia northwestern steppe region is characterized by a high environmental heterogeneity where fire and grazing disturbances appears as influential factors in the landscape structure due to its effect modifier of the plant mosaic. The aim of this is research is to characterize the spatial pattern found in the *Fabiana imbricata* shrublands over an area of 23000 ha. The species of study is a typical shrub of NW Patagonia that forms dense shrublands where its dynamics seems to be strongly related to fire, and probably grazing. From high-resolution satellite images and walk round with GPS in the field were digitized *Fabiana imbricata* patches. The data were processed with GIS software to reflect the spatial structure of these patches and then converted to files valid for to use in the "Programmita" software (which quantifies spatial patterns). Characterizing the spatial structure of these shrubs is initially a descriptive work, but is the first step to infer whether such structure is the result of environmental heterogeneity or whether is part a dynamic population that may be related to common disturbances in the study area, like as fire and grazing.