



Conservation strategies definition for large abandoned landscape of Mediterranean basin

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Land abandonment after the Second World War had several impacts on biodiversity and fire spreading, especially in the complex and fragile ecosystems of mountain landscapes, where the rate of forest expansion was significant. Hence, the development of conservation strategies and sustainable socio-economic management plans for mountain landscapes plays a very important role in ensuring benefits to people and ecosystems in these rural areas as well as those downstream.

To obtain an effective biodiversity conservation it is necessary a wide and multi-scale approach that includes both reserve and non reserve areas taking into account human needs for a sustainable development. These aims are often contrasted by limited economic resources available for conservation strategies that serve these large and often poorly managed territories. Moreover, the efficacy of proposals such as restoration actions (e.g. scrub clearing) or the promotion of multifunctional agriculture, suggested by several authors, depends on both the localization and extension of interested areas and the duration of application.

Thus to better manage resources, it is useful to understand if the natural evolution involves significant changes to the landscape pattern and, consequently, to the level of biodiversity, or if some stable or dynamic (constant rate of change) state is close to being or has already been reached in order to validate the restoration effort.

In this work, a stability analysis of landscape features derived from land cover maps, was done considering the variation in land cover typologies proportion, change rate, size and shape of patches. The study area was a mountain municipality of central Apennines (Italy) undergoing evident abandonment processes. Characteristic landscape pattern changes and trend were pointed out. Results allowed us to propose some conservation strategies linked to equilibrium dynamics for the preservation of current landscape values.