MIRABEL Models for Integrated Review and Assessment of Biodiversity in European Landscapes: Land abandonment

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Factors that affect succession pathway and rate

Example 3: Land abandonment

Definition

Change in land use from traditional/recent practices to less intensive use (Baudry 1991).

Methodology

We attempted to predict vegetation change empirically from a knowledge of the mechanisms of succession taken from the scientific literature. We used level 3 EUNIS habitat types as the basis for describing vegetation. Data from Natura 2000 sites and Corine biotopes was used to quantify the location and amount of habitat that could be threatened by land abandonment.

Successional pathways in the Mediterranean region

Gaps in knowledge

Pressure

More information is needed on the complex process of land abandonment. Indicators to determine the distribution of abandonment at the landscape scale are required.

State

More information on habitats is needed particularly for accession countries. We have only looked at protected habitats. There is a need to have uniform data on species and habitats at the same resolution across Europe.

Impact

A lot more work is required on successional pathways in different habitat types. There are very few studies at sufficient temporal and spatial scales to predict vegetation changes, particularly in the Boreal, Continental (including many accession countries) and Pannonian regions. Studies were available on a limited number of habitat types, this needs to be expanded to include many more habitats that can be identified using a common classification such as EUNIS.

Response

The character and impacts of land abandonment vary much between regions that there is no one common response. Improved integration of information on pressures, and impacts will enable better decision-making.