Biodiversity, ecosystem function and the role of long term land use

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KEYWORDS

- Plant Functional Traits
- Ecosystem Function
- Biodiversity
- Plant Functional Types
- Plant Functional Diversity
- Ecosystem function
- Resistance
- Long term land use
- Chronosequence

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INTRODUCTION

The study of changes in species composition and site characteristics over time lead to a complex understanding of the grassland dynamics.

Using plant functional traits instead of species might help identify general processes of the dynamic of the grassland. Indeed, it has been suggested that ecosystem function is not dependant of the number of species itself, but on the functional traits of the species present (e.g. Hooper & Vitousek, 1997; Mason et al., 2003). With the help of plant functional traits, species can be aggregated into functional groups according to the similarity of their response or effects, and plant diversity can be considered from the functional point of view rather than taxonomically (Functional Diversity).

GOAL AND APPROACH OF THE PROJECT

The goal of our project is to analyse and understand the role of long term land use on semi-natural grassland dynamic and functioning and how this may change across space and through time

Our approach to test hypotheses on external/ internal causes and mechanisms of functional diversity change through time is to use a multiple sites framework, which represent different age of grassland and so different phases in the vegetation dynamic, i.e. chronosequence.

PROJECT OBJECTIVES

- Contribution to the understanding of the role of long-term land use on plant functional diversity and ecosystem function, and depending on the previous land use
- Analyse the resistance of the grassland ecosystem to land use change