



Evaluation of the agronomical and environmental relevance of the CAP measure 'flowering grassland'

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The measure « flowering grassland »

- « flowering grassland » a recent measure in France to ensure conservation of natural habitats and highly diverse grasslands ... and to promote an agri-environmental compromise
- subsidies for farmers controlled by the presence of a list of target species (4 among n possibles)
- Mainly applied in France in Natural Regional Parks(NRP) with one list of species per NRP



List of control species





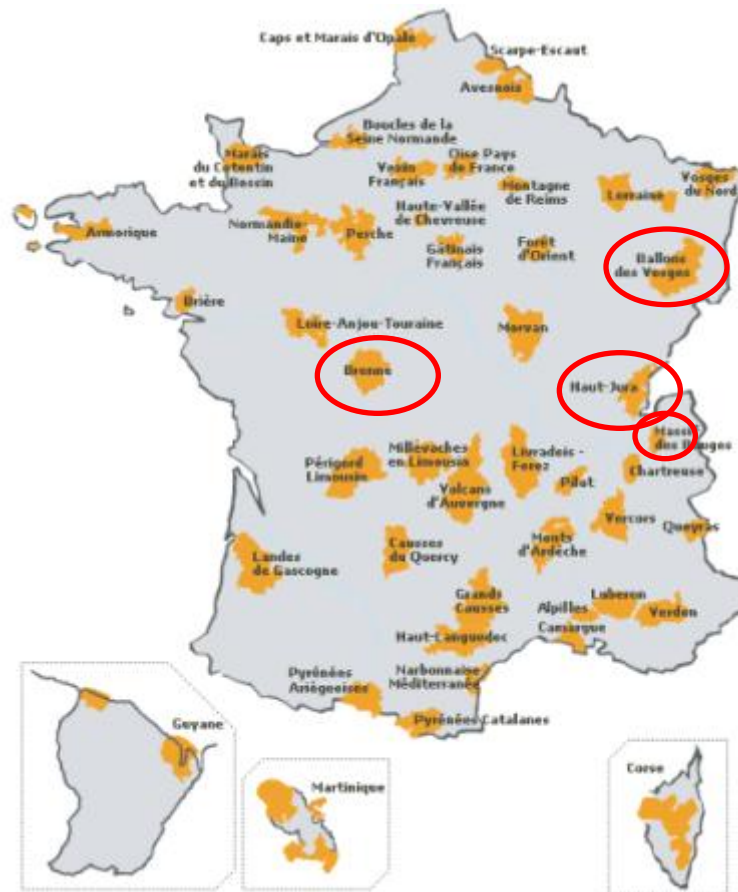
Objectives of the study

- **Agronomical and environmental assessment of the measure « flowering grassland »**
- Study funded by the french Ministry of environment, program DIVA2, mid-term results
- Final objective : improvement of the next generation of measure



Material and methods

- dataset : 671 permanent grasslands from 4 NRP



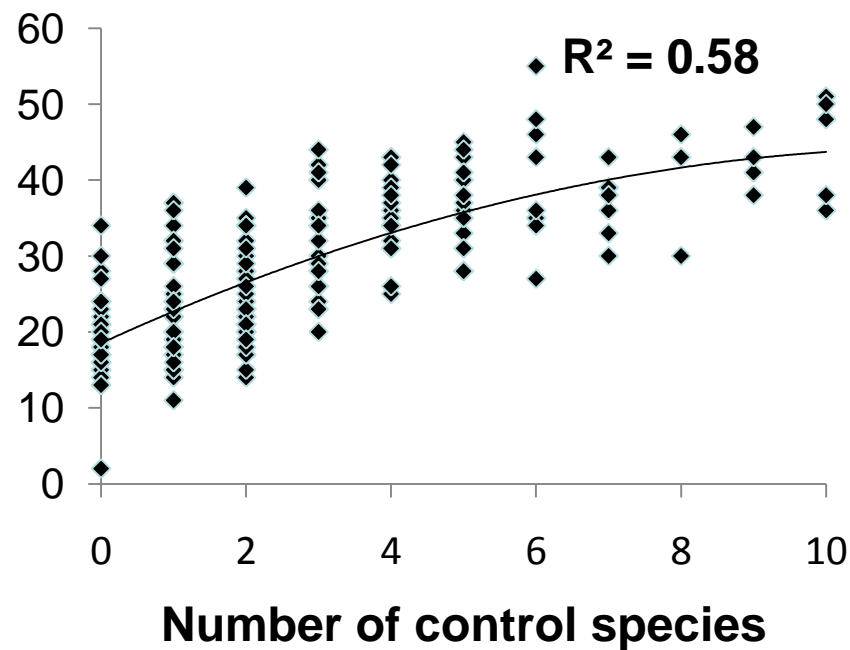


Material and methods

- Exhaustive list of present species (n=671)
- Determination of the number of control species
- Criteria of biodiversity
 - Total plant species richness
 - Total plant oligotrophic species richness
 - Rarity index
 - Pollinator index
- Criteria of agronomical value
 - Pastoral value (calculated)
 - Forage production (T DM.year-1)



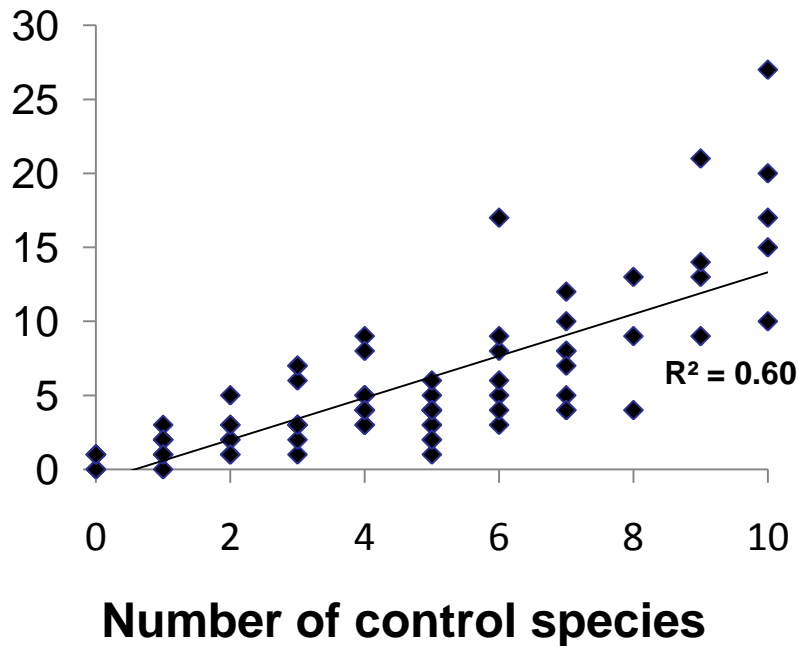
Species richness



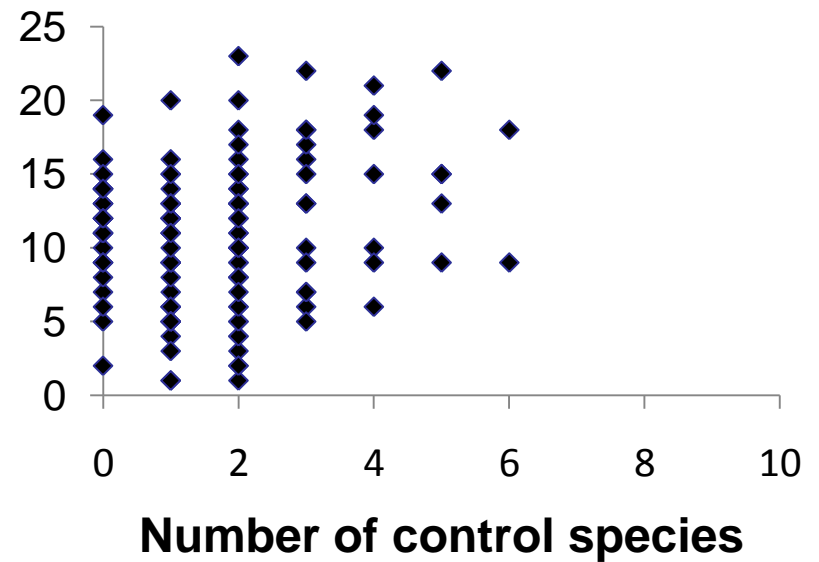


Oligotrophic species richness

NRP Haut-Jura

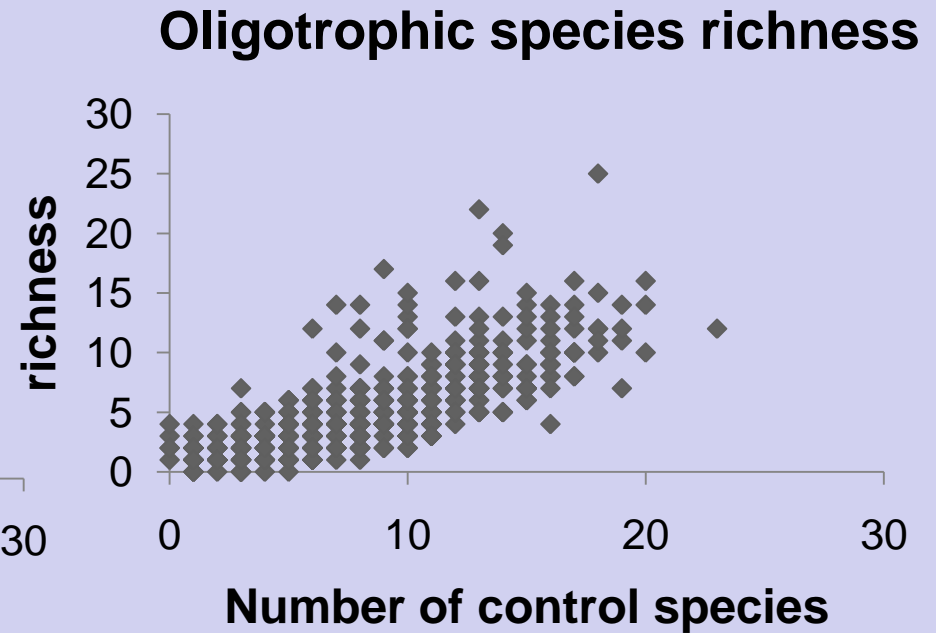
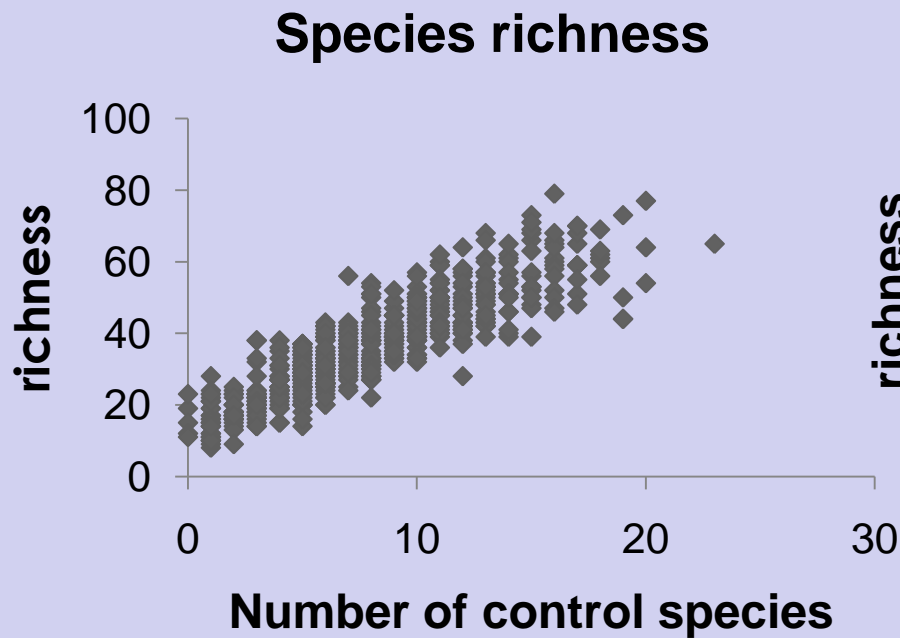


NRP Ballons des Vosges

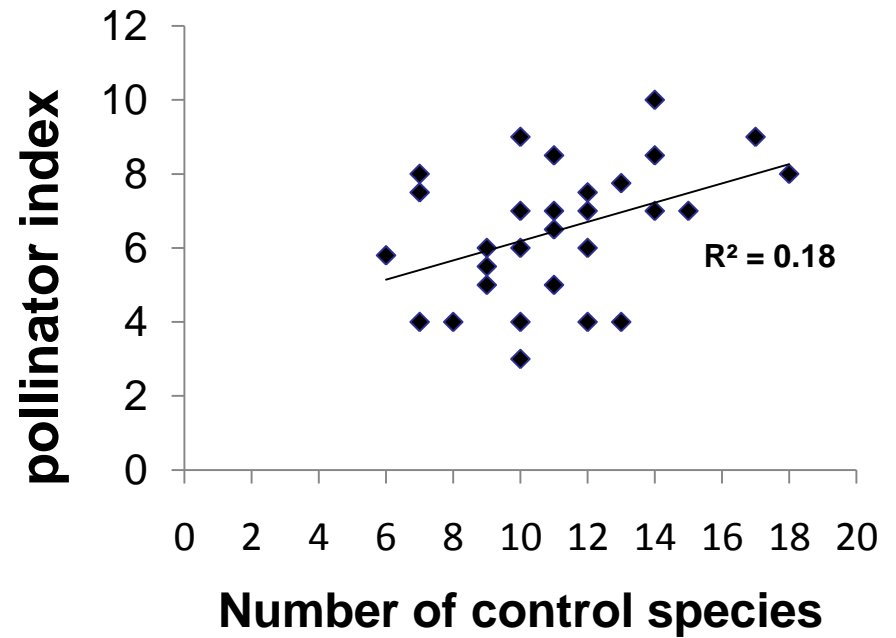
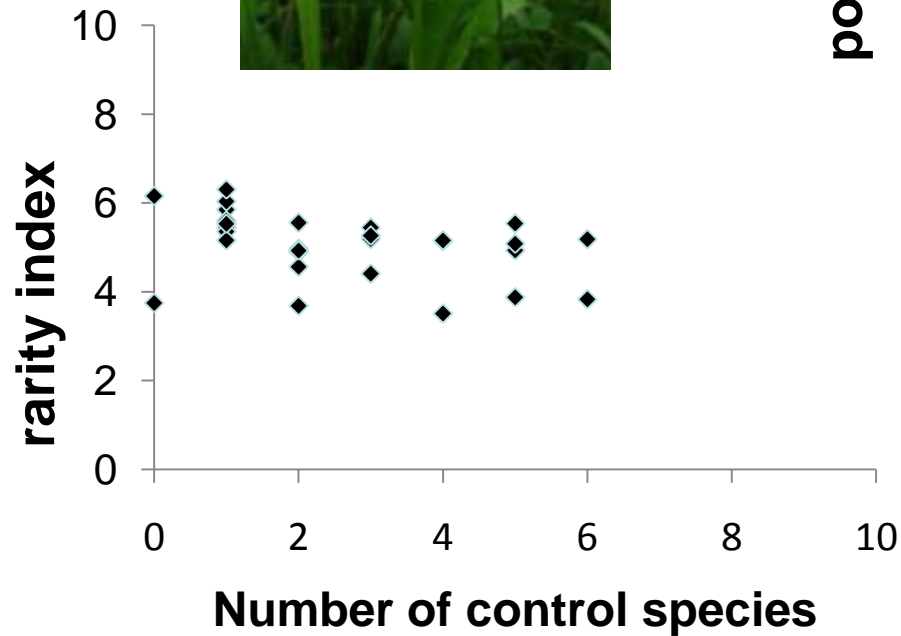




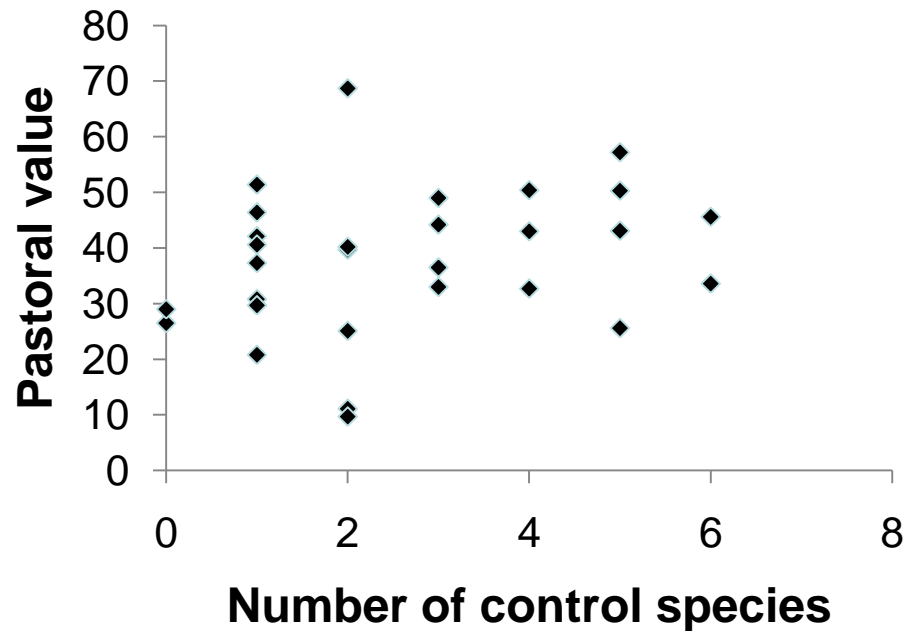
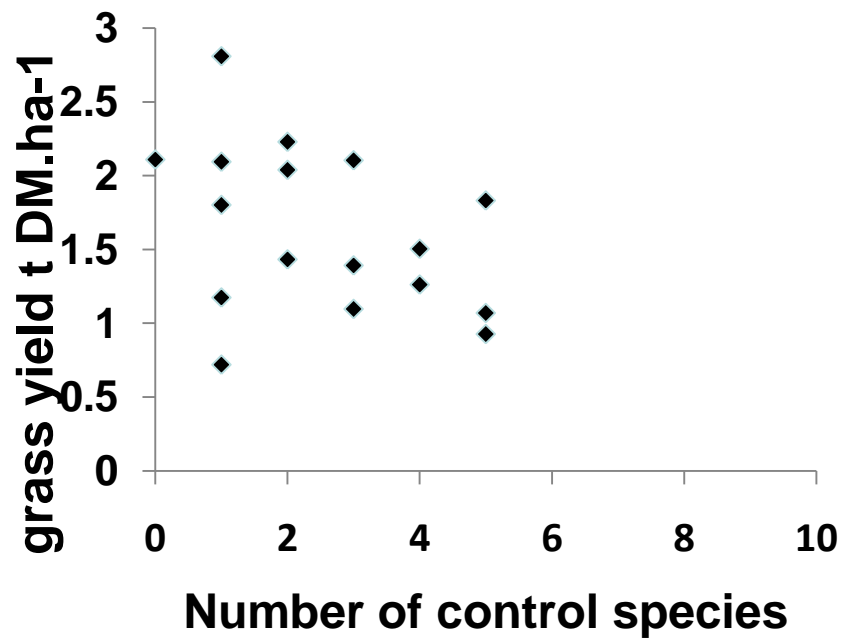
Species richness calculated from national list 2010



Rarity and pollinator index

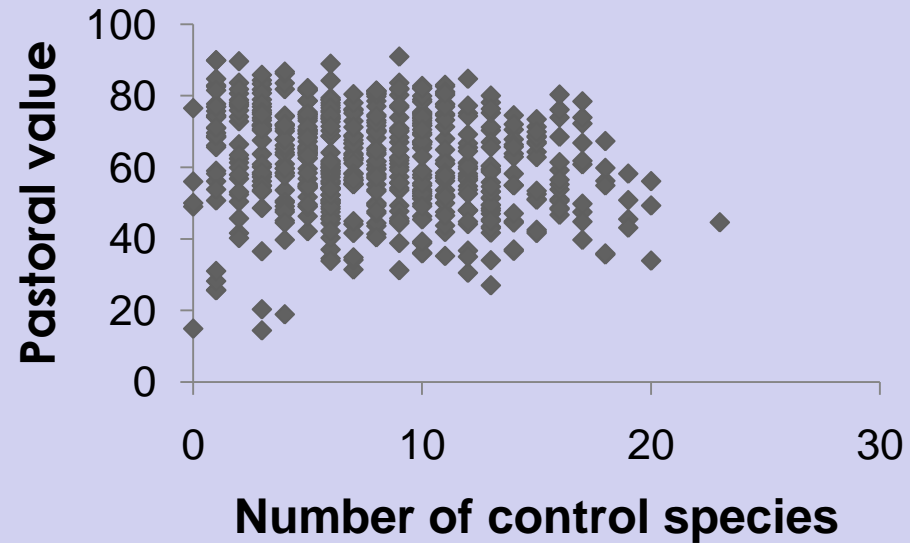
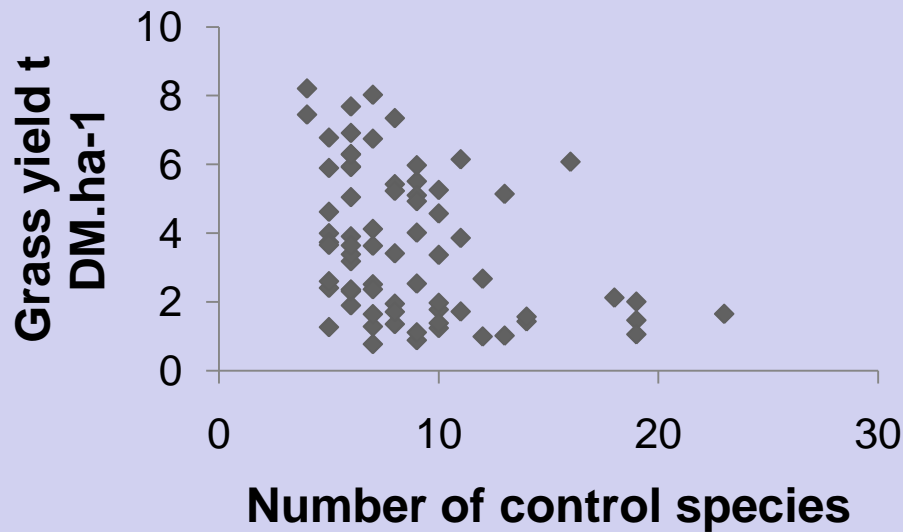


Forage yield and pastoral value





Forage yield and pastoral value calculated from national list 2010





Conclusions

The indicator « number of control species » is

- clearly linked to species richness
like in Germany (Opperman, 2003; Wittig et al, 2006)
- Not related with other biodiversity indexes
(and with agronomomic value ?) of grasslands

Results to be confirmed for agronomical value

- low number of available data
- Farmers criteria may greatly differ from forage yield
- Complementary studies in progress

Importance of local lists elaboration methodology

Combination of criteria ? As suggested by Kaiser et al (2010)





Thank you for attention