

Linköping University

Grazing versus mowing:

management of semi-natural grasslands

Malin Tälle

IFM Biology, Conservation Ecology Group, Linköping University

Background

Semi-natural grasslands is one of Europe's most species-rich habitats, with many threatened species. Grazing and mowing helps maintain species richness but few studies have investigated which of grazing and mowing best maintains the conservation value and diversity of seminatural grassland vegetation.

Aim: compare the effect of grazing and mowing and determine which management practice has the largest positive effect on the grassland flora.

Methods

Locations: 11 sites in southern Sweden Method: Experiment running between 1973-1986, comparing the effect of grazing and mowing. Flora surveyed on three occasions per site. Analyses: Odds ratios contrasting grazing with mowing, using frequency of groups of indicator species (good management, lack of management and excess nitrogen). Trend over time evaluated with metaregression.

Results

Odds ratio: Odds of finding indicators of good management increased in mowed plots. Odds of finding indicators of excess nitrogen and lack of management unchanged in grazed and mowed plots Meta-regression: Significant change in odds of finding indicators of good management over time. Non-significant change in odds of finding indicators of excess nitrogen or lack of management.

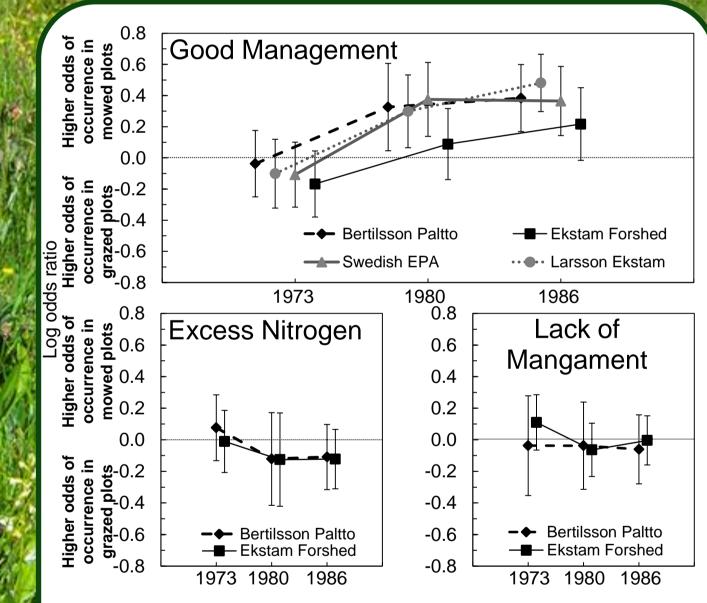


Figure showing change over time in log odds ratio. Points above 0: higher odds of finding indicators in mowed plots. Points below 0: higher odds of finding indicators in grazed plots.

Conclusion

Mowing had a more positive effect on the flora compared to grazing.
When considering the flora, mowing should be the recommended management practice in semi-natural grasslands.

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Contact information

Malin Tälle malta043@student.liu.se +46(0)738011053

