

The Cutting Edge: mower or grass trimmer for grassland management?

Malin Tälle, Karl-Olof Bergman, Heidi Paltto, Aina Pihlgren, Roger Svensson, Lars Westerberg, Jörgen Wissman & Per Milberg

IFM Biology, Conservation Ecology Group, Linköping University & CBM, SLU, Uppsala

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Background

Meadows is one of Europe's most species-rich habitats, with many threatened species. Traditionally managed using cutting instruments like scythe or knife mower, a new mowing technique has emerged: the grass trimmer. However, concern prevail that it might have a negative effect on meadow vegetation.

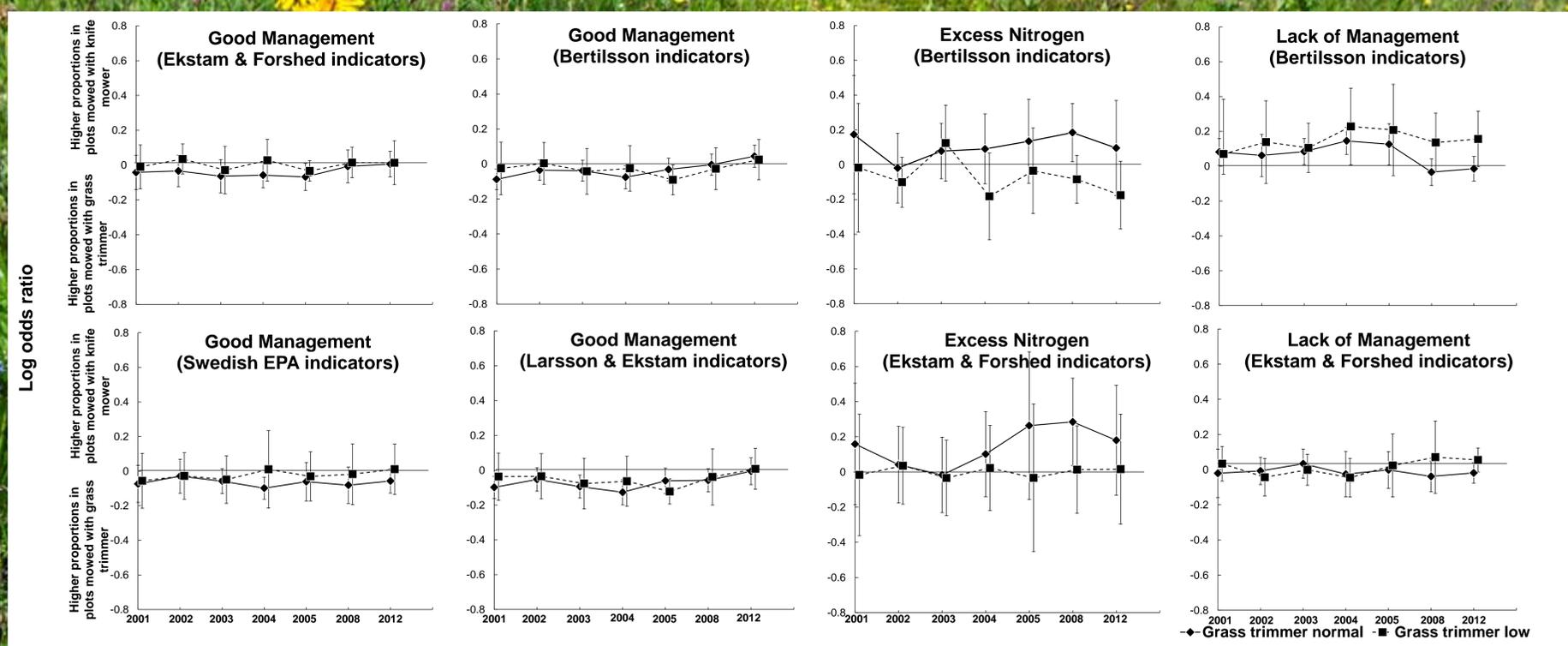
Aim: compare different mowing techniques in their effect on the flora over 13 years.

Methods

Location: Sättra ängar, Östergötland, Sweden.

Method: Experiment 2001-12, comparing three treatments: grass trimmer at 0 or 5 cm cutting height, and knife mower. Flora surveyed on seven occasions.

Analyses: Odds ratios contrasting grass trimmer with knife mower, using frequency of groups of indicator species (good management, lack of management, excess nitrogen). Trend over time evaluated with meta-regression. Vegetation composition analysed with Principal Response Curves (PRC).



Results

Odds ratio: no effect of the different treatments on the occurrence of indicator of good or poor management.

Meta-regression: no changes in odds ratio over time.

PRC: no trend in composition over time due to treatments.

Conclusion

- Treatments did not differ in their impact on indicators of good or poor management, nor on the general composition of the vegetation

- So all three methods may be helpful, and there is no evidence for a grass trimmer being detrimental from the point of view of conservation

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Contact information

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

