

Latvian Semi-natural Grasslands in the Socio-ecological Extinction Vortex: the Evidence and Research Gaps

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INTRODUCTION

Semi-natural grasslands depend on active management by certain societal actors, and can therefore be defined as socio-ecological systems (Herzon et al., 2021). Semi-natural grasslands of the European Boreal biogeographical region are considered to be caught in a socio-ecological extinction vortex (Herzon et al., 2022). Our aim was to look at the evidence for the extinction vortex of Latvian semi-natural grasslands at the national level, and to describe the main directions in which research is insufficient.

MATERIAL AND METHODS

We conducted a scientific literature review and collected official agricultural and habitat conservation statistics.

RESULTS

Published studies are dominated by ecological aspects of semi-natural grasslands in Latvia. At the national level, there is little evidence available about all four interlinked and mutually reinforcing socio-economic processes operating in the extinction vortex (Herzon et al., 2022): 1) agricultural production; 2) policy, research and development; 3) vocational education in the fields of agricultural sciences and 4) the public's experience with semi-natural habitats.

DISCUSSION

The success of semi-natural grassland conservation depends on how well social-ecological system (SES) thinking has been applied through conservation planning and implementation (Krievins et al. 2018; Fischer et al. 2021). Therefore, conservation should approach semi-natural grasslands as socio-ecological systems rather than merely ecosystems. In Latvia, this approach has not yet been fully appreciated.

CONCLUSIONS

There is a lack of understanding of semi-natural grasslands as socio-ecological systems in Latvia both in the governmental and non-governmental sector, as well as in the research community. The main research gap is in inter- and transdisciplinary approaches to semi-natural grassland conservation.

KEYWORDS: Socio-ecological system, Semi-natural habitat, Conservation, Cooperation

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