

Ódor, P. & Standovár, T. (2002): Substrate specificity and community structure of bryophyte vegetation in a near-natural montane beech forest. Community Ecology 3(1): 39-49.

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Short reference: Ódor & Standovár (2002)

First author: Ódor P.

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Abstract

Bryophyte vegetation on volcanic rock outcrops and dead wood is studied in a near-natural montane beech stand in northern Hungary. Substrate specificity of the species and the existing interspecific relationships are described. The most important species combinations and their diversity are evaluated using information theoretical functions and Monte-Carlo simulations.

All analyses are based on presence/absence data of 33 species in 1508 100 cm² microplots. Most species exhibit strong substrate specificity. Of the species that occurred with frequencies higher than 10, 8 are associated to rock, 5 to dead wood and 5 to both substrate types. Analyses of interspecific associations and agglomerative classification reveal that frequent species of species-poor bare rocks are separated from species-rich assemblages of humus-rich outcrops and coarse woody debris.

Monte Carlo simulations reveal that many species combinations are significantly more frequent than expected under the assumption of random combining of species. Observed number, diversity and evenness of species combinations are significantly lower, whereas interspecific constraint (expressed as associatum) is significantly higher than under the neutral models even when data are stratified according to substrate type.

The presence of coarse woody debris, not only provides habitat for wood inhabiting bryophytes, but also results in diverse rupicolous bryophyte assemblages on humus-rich outcrops.

[biodiversity: moss](#)

[methodology: analysis, statistics](#)

Notes

Substrate specificity and community structure of bryophyte vegetation in a near-natural montane beech forest

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Tartalom címszavakban:

Introduction

Materials and methods

Study area

Data collection

Data analyses

Results

Relationships between species and substrate types

Species groups and interspecific associations

Analysis of species combinations

Discussion

Substrate specificity

Community organization

Acknowledgements

References

Coarse woody debris, Diversity, *Fagus sylvatica*, Information statistics, Interspecific association, Monte Carlo simulation

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