

[10.1071/CP22215](https://doi.org/10.1071/CP22215)

Crop & Pasture Science

Supplementary Material

Exploring the potential of rising plate meter techniques to analyse ecosystem services from multi-species grasslands

Kilian Obermeyer^{A,B,}, Martin Komainda^A, Manfred Kayser^{A,B}, and Johannes Isselstein^{A,C}*

^ADivision of Grassland Science/Department of Crop Sciences, University of Göttingen, Von-Siebold-Straße 8, Göttingen 37075, Germany.

^BUniversity of Vechta, Driverstraße 22, Vechta 49377, Germany.

^CUniversity of Göttingen, Centre of Biodiversity and Sustainable Land Use (CBL), Büsgenweg 1, Göttingen 37077, Germany.

*Correspondence to: Kilian Obermeyer Division of Grassland Science/Department of Crop Sciences, University of Göttingen, Von-Siebold-Straße 8, Göttingen 37075, Germany Email: kilian.obermeyer@uni-vechta.de

Supplementary figure

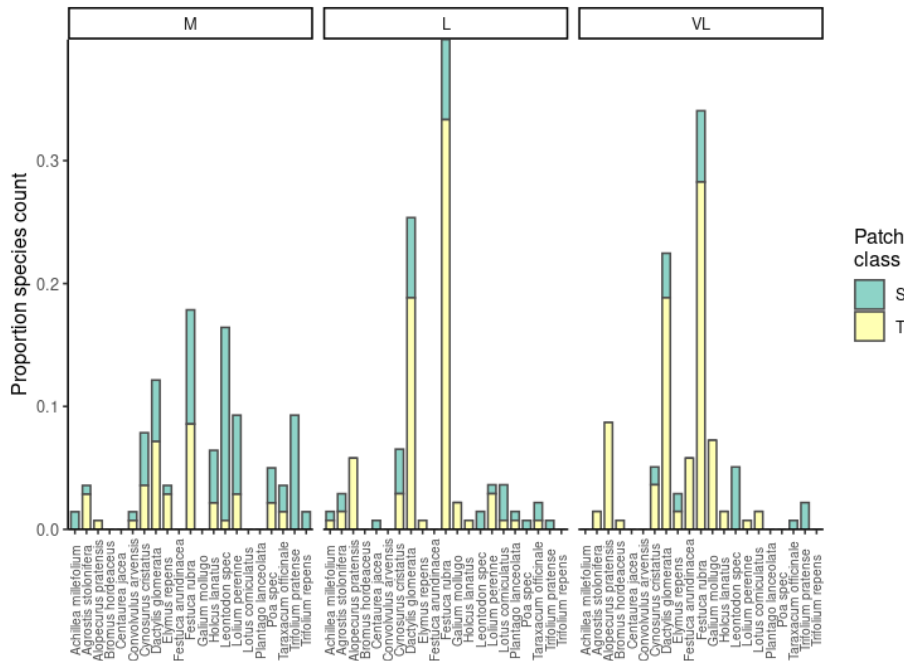


Figure S1. Proportion of species observed as first rank in the dry-weight ranking. Proportions are shown differentiated for the patch classes short (S) and tall (T) within the stocking intensity treatments medium (M), lenient (L) and very lenient (VL). The summed proportions of the species in one patch class and one stocking intensity treatment represent the full number of counts (100%). The proportions of species are from the sampled data without permutation and is not corrected for patch area proportions.

Supplementary table

Table S1. Naive confusion matrices and overview for calculation (adapted from Stehmann & Foody (2019)) of overall accuracy (OA), user accuracy (UA) and producer accuracy (PA). Shown is the raw data of the two interpolation approaches with either two patch classes (short (S) and tall (T)), or three classes (short (S), medium (M) and tall (T)) without poststratification. N_{ij} is the number of reference points per cell with i representing rows and map classification and j representing columns and validation classification.

Calculation Overview		Validation				
Map		S	T	Total	UA	
	S	n_{11}	n_{12}	n_{1+}	n_{11}/n_{1+}	
	T	n_{21}	n_{22}	n_{2+}	n_{22}/n_{2+}	
	Total	n_{+1}	n_{+2}	n_{++}	OA	
	PA	n_{11}/n_{+1}	n_{22}/n_{+2}	OA	$(n_{11}+n_{22}+\dots+n_{ij})/\sum n_{ij}$	
Two-Class Approach		Validation				
Map		S	T	Total	UA	
	S	52	6	58	0.897	
	T	16	34	50	0.68	
	Total	68	40	108	OA	
	PA	0.765	0.85	OA	0.796	
Three-Class Approach		Validation				
Map		S	M	T	Total	UA
	S	30	12	0	42	0.714
	M	13	12	11	36	0.333
	T	2	14	14	30	0.466
	Total	45	38	25	108	OA
	PA	0.75	0.316	0.56	OA	0.519