

Supplementary Material

Effects of inundation, nutrient availability and plant species diversity on fine root mass and morphology across a saltmarsh flooding gradient

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Supplementary Material 1: Results of statistical comparisons of soil properties

Table S1: Results of statistical comparisons of soil properties at the two study sites in the salt marshes of Spiekeroog Island and Westerhever on the German North Sea coast (data given in Table 1). Different letters mark statistically significant differences between zones (a,b), between sites (A,B), or between soil horizons (α , β) analyzed by Kruskal-Wallis multiple comparisons ($p < 0.05$) or Welch's two sample t-test for soil horizons ($p < 0.05$).

Site	SPIEKEROOG						WESTERHEVER				
	Pioneer zone		Lower salt marsh		Upper salt marsh		Pioneer zone		Lower salt marsh	Upper salt marsh	
No. of mean monthly flooding events (10.2014-09.2015)	46		16		4		20		16	8	
Sediment horizon	A _i	G _o /G _r	A _h	G _o /G _r	A _h	G _o /G _r	A _i	A _h	G _o /G _r	A _h	G _o /G _r
Sand (> 63 μ m) fraction (%)	a,A, α	a, β	a,A, α	a,A, β	a,A, α	a,A, β	a,B	a,B, α	a,B, α	a,A, α	a,B, α
Silt (2 - 63 μ m) fraction (%)	a,A, α	a, β	a,A, α	a,A, β	a,A, α	a,A, β	a,B	a,B, α	a,B, α	a,A, α	a,B, α
Clay (< 2 μ m) fraction (%)	a,A, α	a, β	a,A, α	a,A, β	a,A, α	a,B, α	a,A	a,A, α	a,B, α	a,A, α	a,B, α
Bulk density (g cm ⁻³)	a,A, α	a, β	a,A, α	a, β	a,A, α	a, β	a,B	a,A	NA	a,B	NA
pH (H ₂ O) (min-max)	ab,A, α	a, β	a,A, α	b,A, β	b,A, α	ab,A, α	a,B	a,B, α	a,B, α	b,A, α	b,A, β
pH (KCl) (min-max)	ab,A, α	a, α	a,A, α	b,A, α	b,A, α	ab,A, α	a,B	a,B, α	a,B, β	b,A, α	a,A, α
Total nitrogen (%)	a,A	NA	a,A	NA	a,A	NA	a,A	a,A, α	a, α	a,A, α	a, α
Organic carbon (%)	a,A	NA	a,A	NA	a,A	NA	a,B	a,A, α	a, β	a,A, α	a, α
C:N ratio of soil	a,A	NA	a,A	NA	a,A	NA	a,B	a,B, α	a, α	a,A, α	a, α
Na (mg kg ⁻¹)	a,A, α	a, β	ab,A, α	ab,A, β	b,A, α	b,A, β	a,B	a,A, α	a,B, α	a,A, α	b,B, α
S (mg kg ⁻¹)	a,A, α	a, β	ab,A, α	ab,A, β	b,A, α	a,A, β	a,B	a,A, α	a,A, β	a,A, α	a,B, α
plant-available P (mg kg ⁻¹)	a,A, α	NA	ab,A, α	a,A, α	b,A, α	a,A, β	a,B	a,B, α	a,A, α	a,B, α	a,B, α
mineral N content (mg kg ⁻¹)	a,A, α	a, β	a,A, α	a,A, β	a,A, α	a,A, β	a,A	a,A, α	a,B, β	a,A, α	a,B, α

NA: data not available