

Männistö E., Jetsonen J., Peltola H., Rouvinen T., Launiainen S., Laurén A., Palviainen M. (2026). Short-term impacts of nitrogen fertilization on the cover of vascular plant and bryophyte species in boreal Scots pine and Norway spruce stands. *Silva Fennica* vol. 60 no. 2 article id 25052. <https://doi.org/10.14214/sf.25052>

Supplementary file S12

Permutational multivariate analysis of the variance results for pairwise comparisons of the ground vegetation species communities in unfertilized (NoF) and fertilized (F) subplots over the three study years (2019, 2021, 2022) in the Norway spruce stands. DF denotes degrees of freedom and SS the sum of squares. Statistically significant results are shown in bold text ($p \leq 0.05$).

Pairs	DF	Sums of Sqs	F	R2	adjusted p
NoF_2019 vs NoF_2021	1	0.46	3.02	0.03	0.045
NoF_2019 vs NoF_2022	1	0.57	3.81	0.03	0.045
NoF_2021 vs NoF_2022	1	0.15	0.96	0.01	1
F_2019 vs F_2021	1	1.12	8.06	0.04	0.015
F_2019 vs F_2022	1	1.41	10.01	0.04	0.015
F_2021 vs F_2022	1	0.31	1.99	0.01	1
F_2019 vs NoF_2019	1	0.69	5.25	0.03	0.015
F_2021 vs NoF_2021	1	0.90	5.78	0.03	0.015
F_2022 vs NoF_2022	1	0.88	5.62	0.03	0.015