

Hardenbol A.A., Ørka H.O., Gobakken T., Kostensalo J. (2026). Optimising rare tree species detection for large-area mapping: a case study on European aspen (*Populus tremula*). *Silva Fennica* vol. 60 no. 3 article id 26012. <https://doi.org/10.14214/sf.26012>

Supplementary file S5

The predicted percentages of European aspen at different base rates (BR; landscape level accuracy) and the breaking points for aspen base rates below which false discovery rate exceeds 50% (local level accuracy) based on our re-analysis of ten previous publications and this work. Note that this ignores posterior credible intervals.

Author(s)	Aspen predicted (BR 0.5%)	Aspen relative error (BR 0.5%)	Aspen predicted (BR 1%)	Aspen relative error (BR 1%)	Aspen predicted (BR 2%)	Aspen relative error (BR 2%)	Breaking point (FDR exceeds 50%)
Erikson 2004	1.1%	+120%	1.5%	+50%	2.2%	+10%	1.1%
Kulikova et al. 2007	6.3%	+1,160%	6.7%	+570%	7.4%	+270%	6.2%
Ørka et al. 2007	2.1%	+320%	2.2%	+120%	2.4%	+20%	7.3%
Viinikka et al. 2020	2.9%	+480%	3.3%	+230%	4.2%	+110%	2.7%
Mäyrä et al. 2021	1.5%	+200%	2.0%	+100%	2.8%	+40%	1.3%
Kuzmin et al. 2021	6.7%	+1,240%	7.1%	+610%	7.8%	+290%	7.3%
Hardenbol et al. 2021	1.3%	+160%	1.7%	+70%	2.7%	+35%	0.8%
Korpela et al. 2022	1.4%	+180%	1.8%	+80%	2.6%	+30%	1.3%
Bjørnøet 2024	4.3%	+760%	4.5%	+350%	4.9%	+145%	9.9%
Toivonen et al. 2024	0.2%	-60%	0.3%	-70%	0.5%	-75%	0.4%
This work (all trees)	0.3%	-40%	0.4%	-60%	0.7%	-65%	0.5%
This work (canopy-reaching trees)	0.3%	-40%	0.5%	-50%	0.8%	-60%	0.4%
This work (all trees, volume)	0.4%	-20%	0.6%	-40%	1.1%	-45%	0.4%
This work (canopy-reaching trees, volume)	0.4%	-20%	0.6%	-40%	1.1%	-45%	0.4%