Jääskeläinen J., Korhonen L., Kukkonen M., Packalen P., Maltamo M. (2024). Individual tree inventory based on uncrewed aerial vehicle data: how to utilise stand-wise field measurements of diameter for calibration? Silva Fennica vol. 58 no. 3 article id 23042.

Supplementary file 5

A comparison of a transferred general diameter/height model and locally constructed models that are calibrated with local field measurements and used for the prediction of diameter at breast height. The accuracy of the predictions is estimated based on the basal area median tree diameter, tree-level volume and plot level total volume.

S5 Prediction of diameter at breast height (DBH) with a general diameter/height model, calibration with field-measured trees, calculation of plot volume and comparison of the results with field measurements: absolute (RMSE) and relative root-mean-square error (%RMSE) and absolute and relative bias (%BIAS) values with and without false trees are shown for the entire dataset and by development class.

		With no false trees				With false trees			
The number of calibration trees	Class	RMSE	RMSE%	BIAS	%BIAS	RMSE	%RMSE	BIAS	%BIAS
0	All	70.31	29.29	57.99	24.11	68.02	28.28	53.09	22.07
	Young	60.78	38.02	54.68	34.2	56.79	35.52	50.71	31.71
	Advanced	54.9	30.4	47.78	26.45	53.29	29.5	46.21	25.58
	Mature	85.4	25.15	68.36	20.13	83.4	24.56	60.17	17.72
2	All	66.18	27.52	54.68	22.73	63.37	26.35	50.06	20.81
	Young	58.25	36.43	51.51	32.22	53.34	33.37	47.16	29.5
	Advanced	52.29	28.95	43.47	24.07	50.77	28.11	41.96	23.23
	Mature	79.34	26.36	65.77	19.37	76.63	22.57	58.45	17.21
4	All	64.65	26.88	53.69	22.32	61.63	25.62	49.23	20.47
	Young	57.23	35.8	50.23	31.42	53.41	33.41	46.77	29.25
	Advanced	50.92	28.19	41.92	23.21	49.77	27.56	40.5	22.42
	Mature	77.44	22.8	65.4	19.26	73.65	21.69	57.87	17.04
6	All	63.82	26.54	53.45	22.22	60.26	25.05	48.55	20.19
	Young	56.81	35.54	49.8	31.15	52.39	32.77	46	28.77
	Advanced	50.55	27.99	41.56	23.01	48.77	27	39.51	21.88
	Mature	76.21	22.44	65.4	19.26	71.89	21.17	57.49	16.93
8	All	63.27	26.31	53.14	22.09	59.78	24.86	48.33	20.1
	Young	56.93	35.61	49.71	31.1	52.3	32.71	45.71	28.59
	Advanced	50.13	27.76	41.25	22.84	48.79	27.02	39.42	21.83
	Mature	75.29	22.17	64.94	19.12	71.01	20.91	57.21	16.85
10	All	62.88	25.14	52.88	21.99	59.42	24.71	48.16	20.02
	Young	56.54	35.37	49.36	30.87	51.89	32.47	45.39	28.39
	Advanced	50.23	27.81	41.11	22.76	48.75	26.99	39.13	21.67
	Mature	74.64	21.98	64.66	19.04	70.5	20.76	57.21	16.85