

Hardenbol A.A., Kuzmin A., Korhonen L., Korpelainen P., Kumpula T., Maltamo M., Kouki J. (2021). Detection of aspen in conifer-dominated boreal forests with seasonal multispectral drone image point clouds. *Silva Fennica* vol. 55 no. 4 article id 10515. <https://doi.org/10.14214/sf.10515>

Supplementary file S2

Table S2. Confusion matrices performed to separate all four tree species optimized for aspen on the five inventory dates throughout the thermal growing season based on manual segmentation. Birches refers to silver and downy birch.

Date 1: 2019-05-13		Predicted				Total	Producer's accuracy, %
		European aspen	Birches	Scots pine	Norway spruce		
Observed	European aspen	100	3	1	0	104	96.2
	Birches	3	107	20	14	144	74.3
	Scots pine	0	13	98	7	118	83.1
	Norway spruce	0	11	1	109	121	90.1
Total		103	134	120	130	414	
User's accuracy, %		97.1	79.9	81.7	83.8		85.0

Date 2: 2019-05-22		Predicted				Total	Producer's accuracy, %
		European aspen	Birches	Scots pine	Norway spruce		
Observed	European aspen	98	5	0	0	103	95.1
	Birches	7	114	3	20	144	79.2
	Scots pine	9	6	102	2	119	85.7
	Norway spruce	1	16	8	96	121	79.3
Total		115	141	113	118	410	
User's accuracy, %		85.2	80.9	90.3	81.4		84.2

Date 3: 2019-05-30		Predicted				Total	Producer's accuracy, %
	European aspen	Birches	Scots pine	Norway spruce			
Observed	European aspen	97	4	3	0	104	93.3
	Birches	3	137	2	2	144	95.1
	Scots pine	0	0	113	6	119	95.0
	Norway spruce	1	3	13	104	121	86.0
Total		101	144	131	112	451	
User's accuracy, %		96.0	95.1	86.3	92.9		92.4

Date 4: 2019-06-13		Predicted				Total	Producer's accuracy, %
	European aspen	Birches	Scots pine	Norway spruce			
Observed	European aspen	94	7	2	0	103	91.3
	Birches	16	101	0	26	143	70.6
	Scots pine	0	3	113	3	119	95.0
	Norway spruce	2	46	0	73	121	60.3
Total		112	157	115	102	381	
User's accuracy, %		83.9	64.3	98.3	71.6		78.4

Date 5: 2019-09-27		Predicted				Total	Producer's accuracy, %
	European aspen	Birches	Scots pine	Norway spruce			
Observed	European aspen	84	10	5	1	100	84.0
	Birches	11	113	4	2	130	86.9
	Scots pine	2	0	101	6	109	92.7
	Norway spruce	0	5	10	98	113	86.7
Total		97	128	120	107	396	
User's accuracy, %		86.6	88.3	84.2	91.6		87.6