

Assessing protection forest structure using LiDAR

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Stand Montafon Forstfonds







Projet RockFor

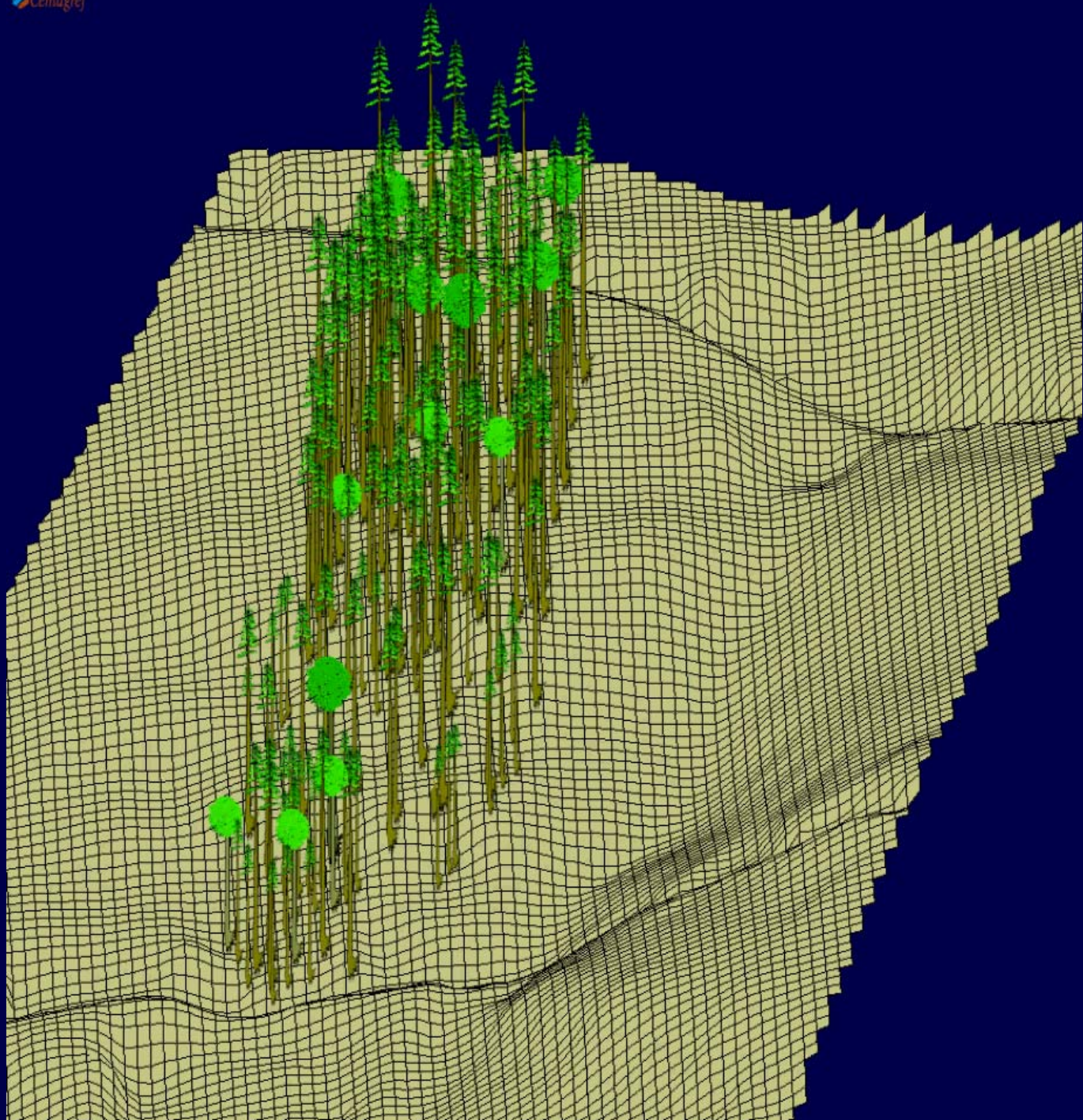


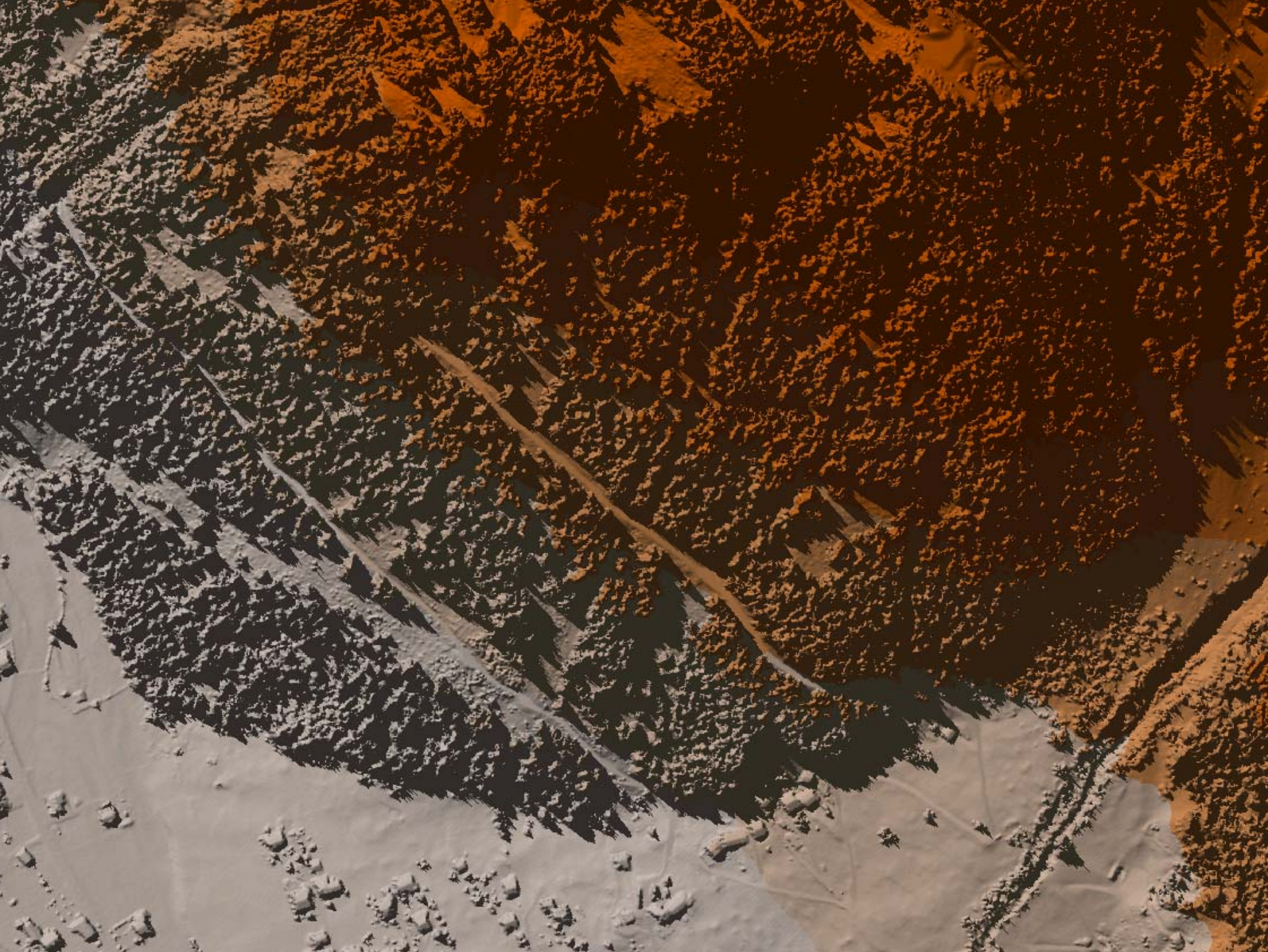
Expérimentation de septembre 2002 sur la
commune de Vaujany (38).

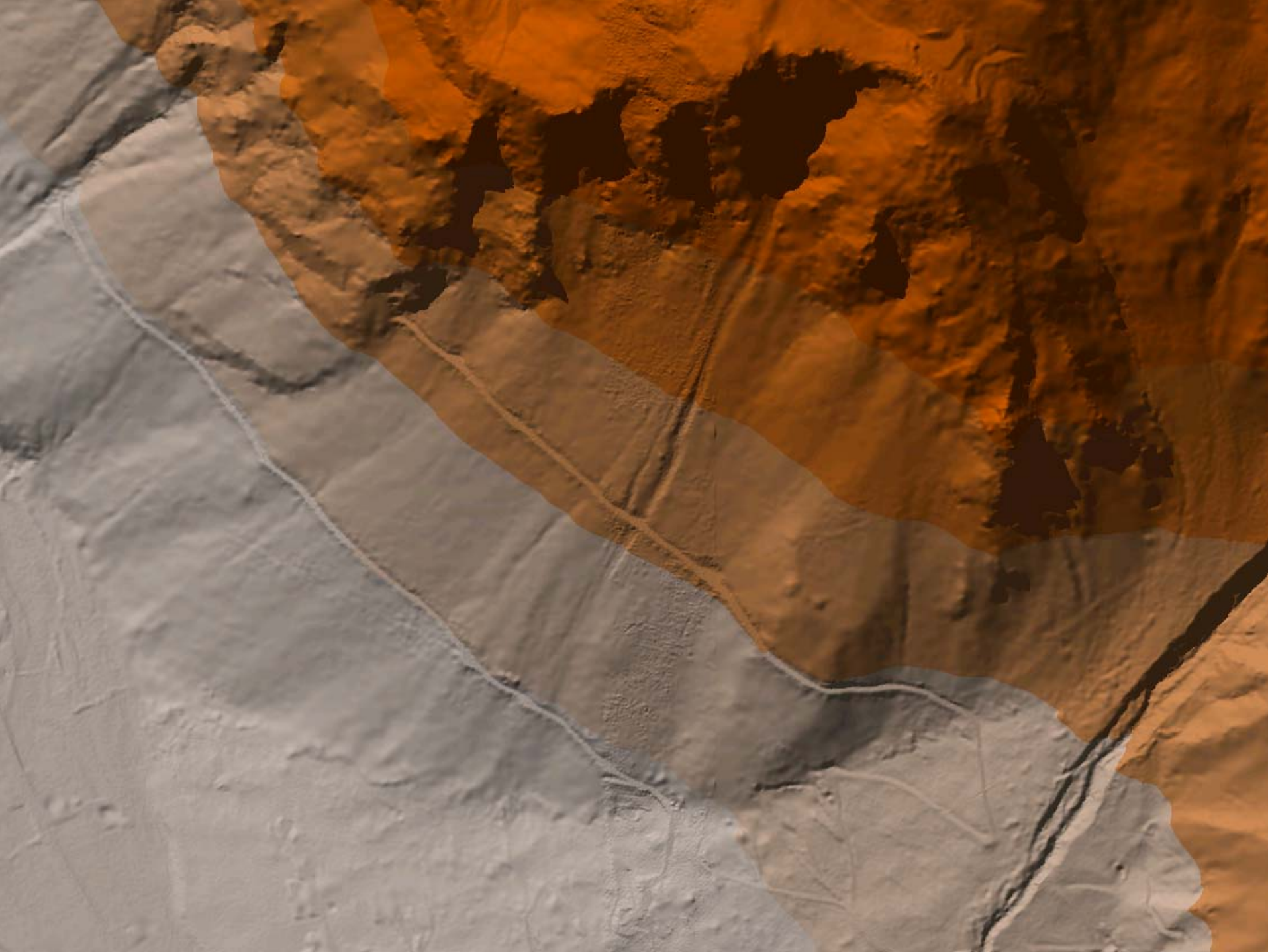
Bloc 29 sectionnant un arbre (65cm de diamètre)

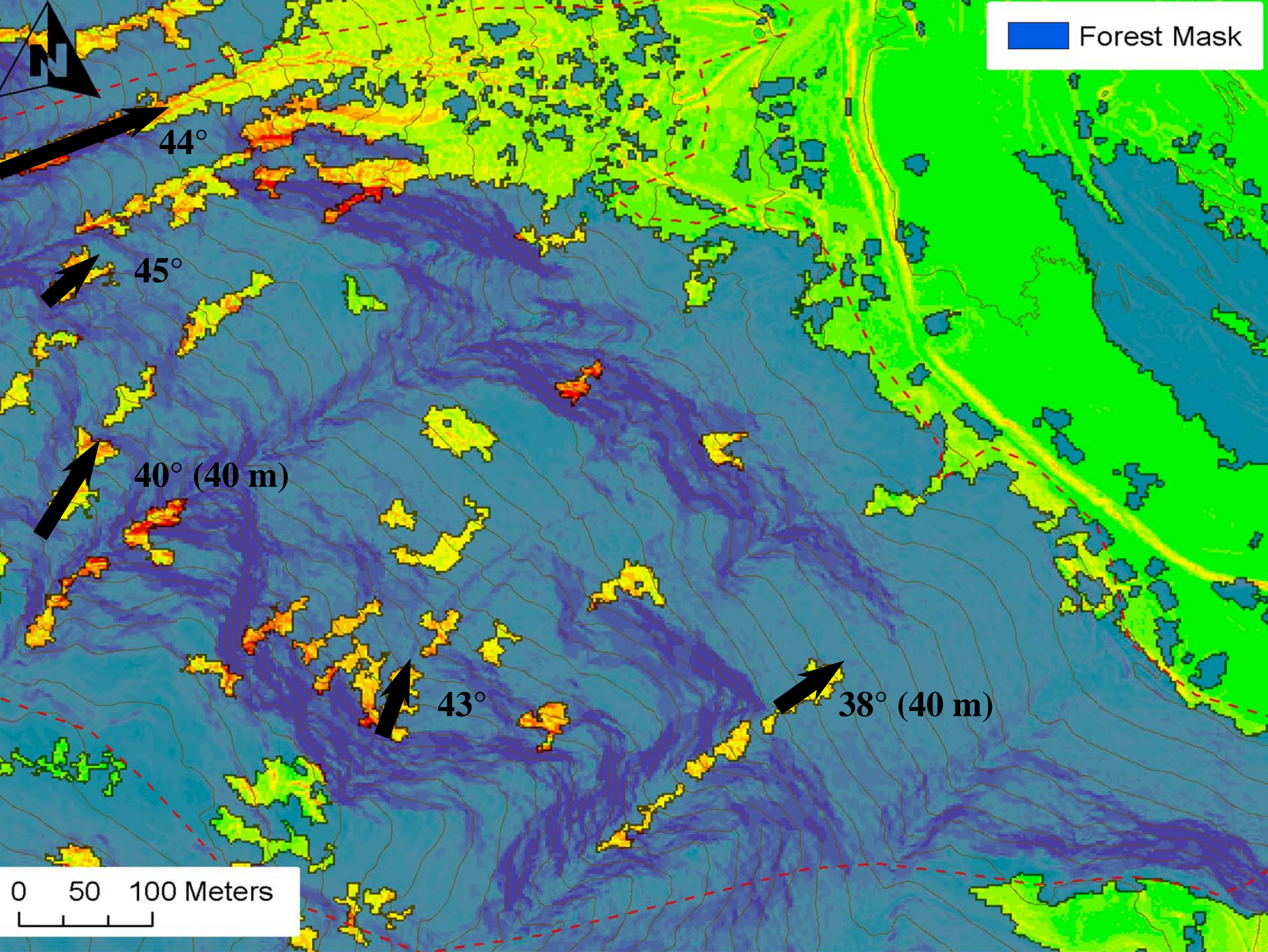


(c) Cemagref-Grenoble 2002









Forest Mask

44°

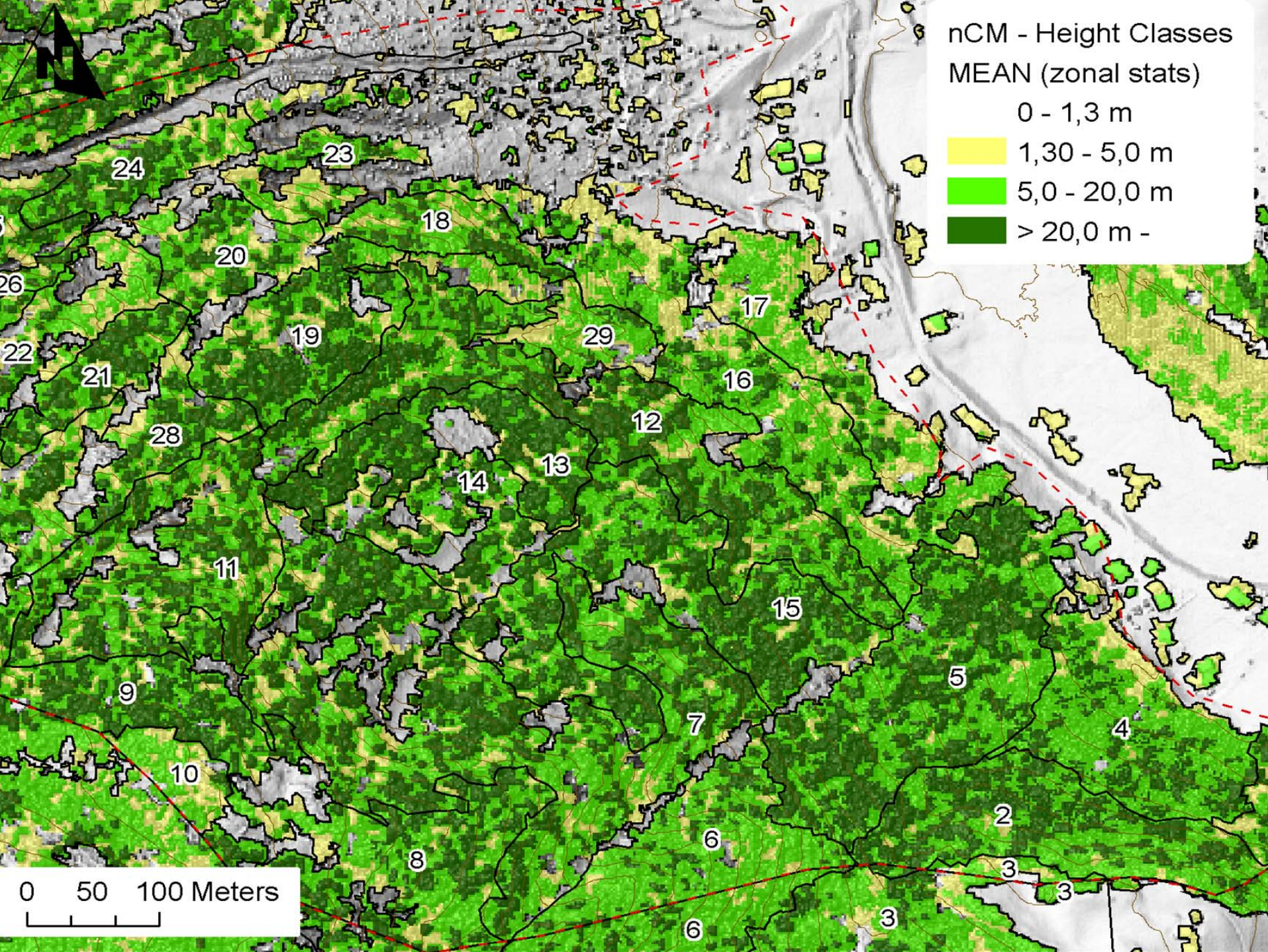
45°

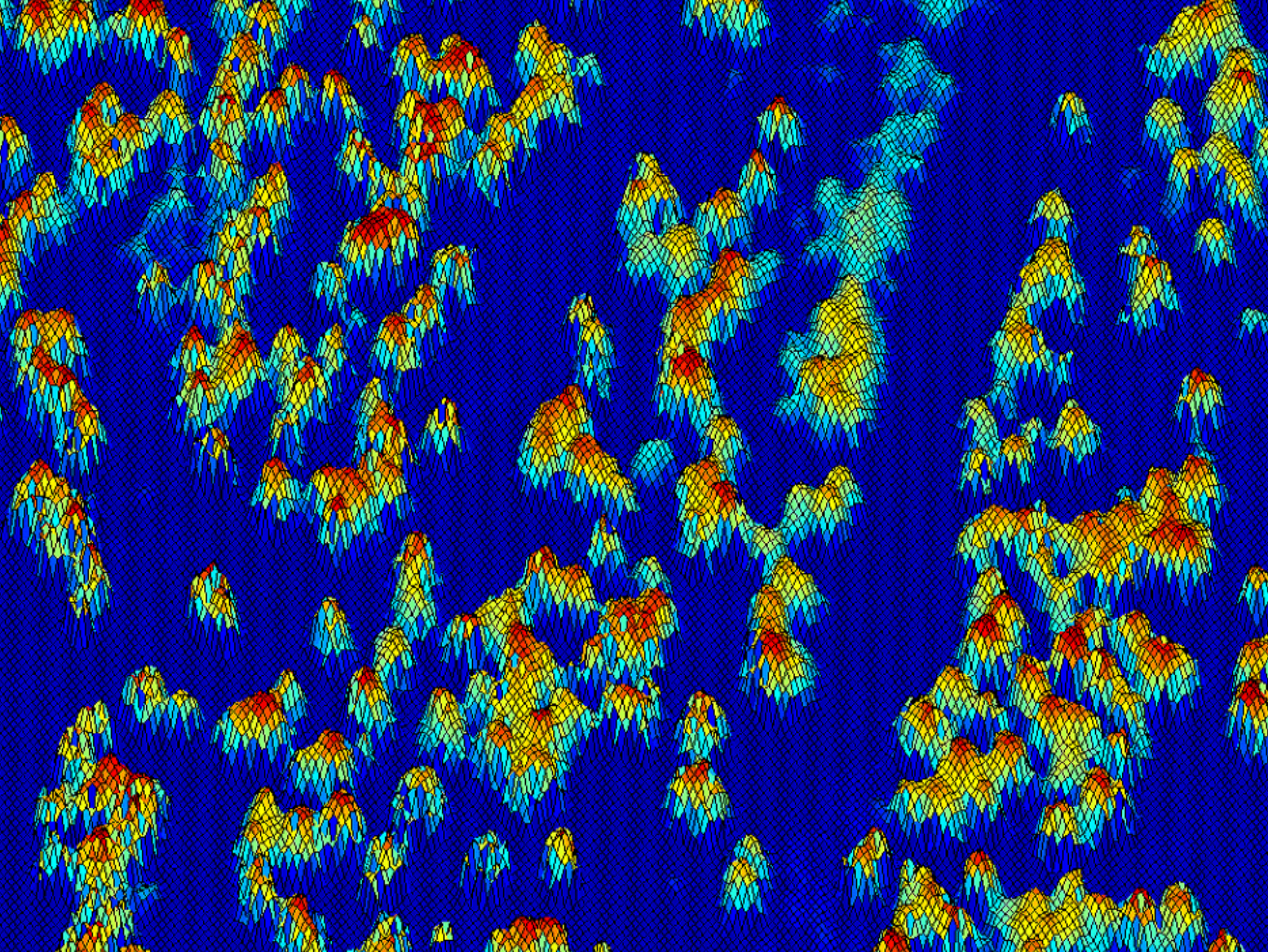
40° (40 m)

43°

38° (40 m)

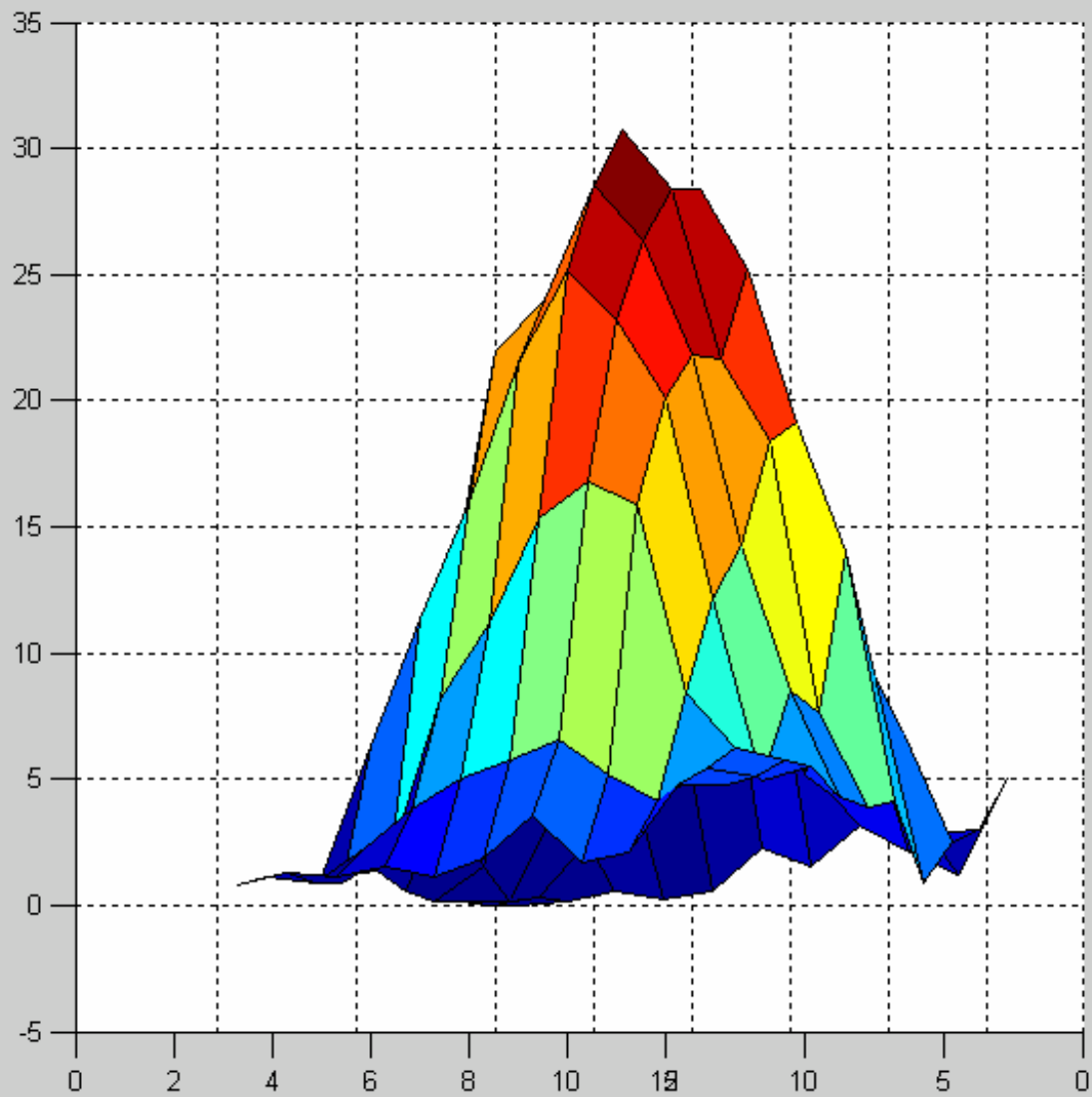
0 50 100 Meters

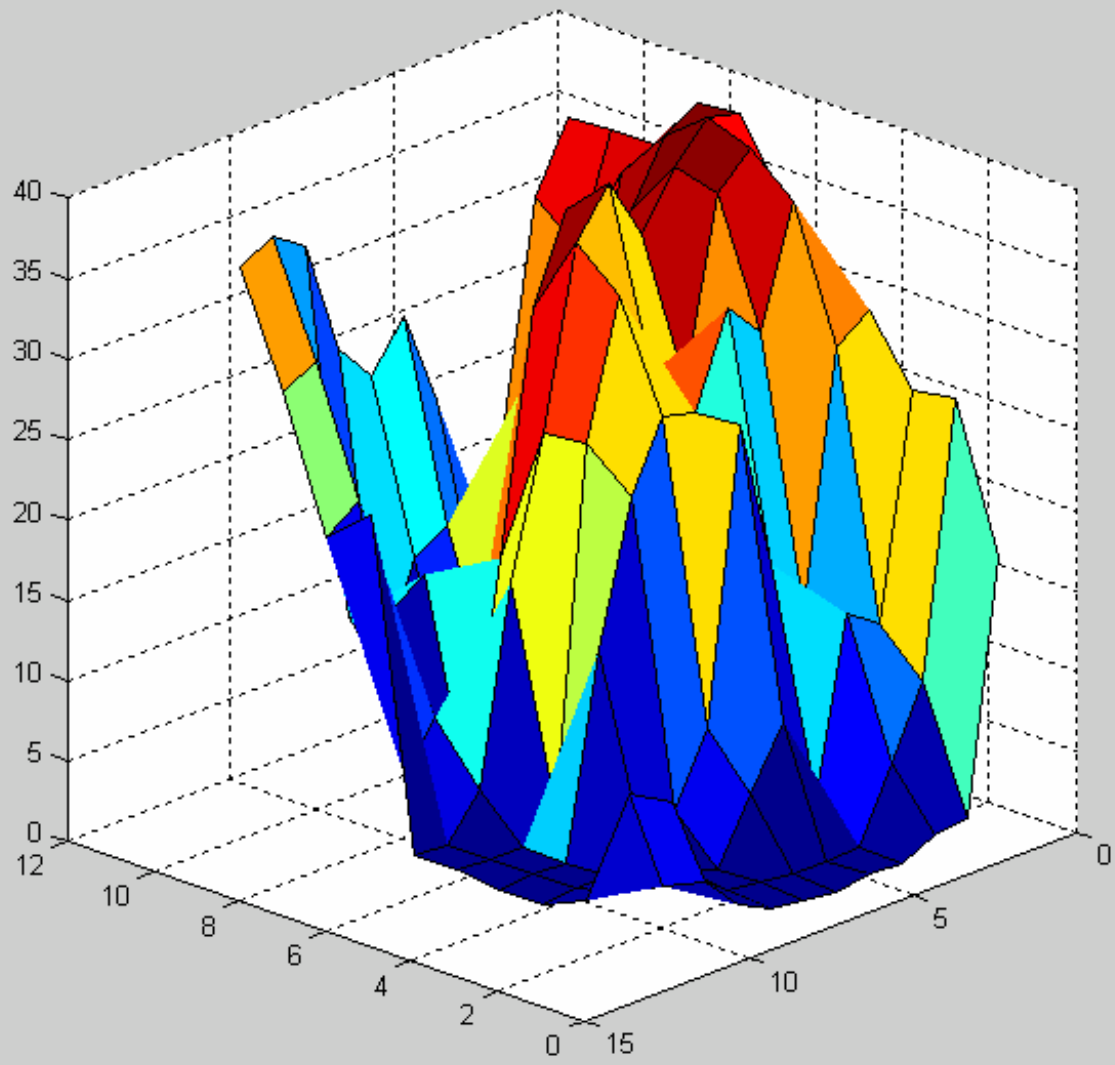


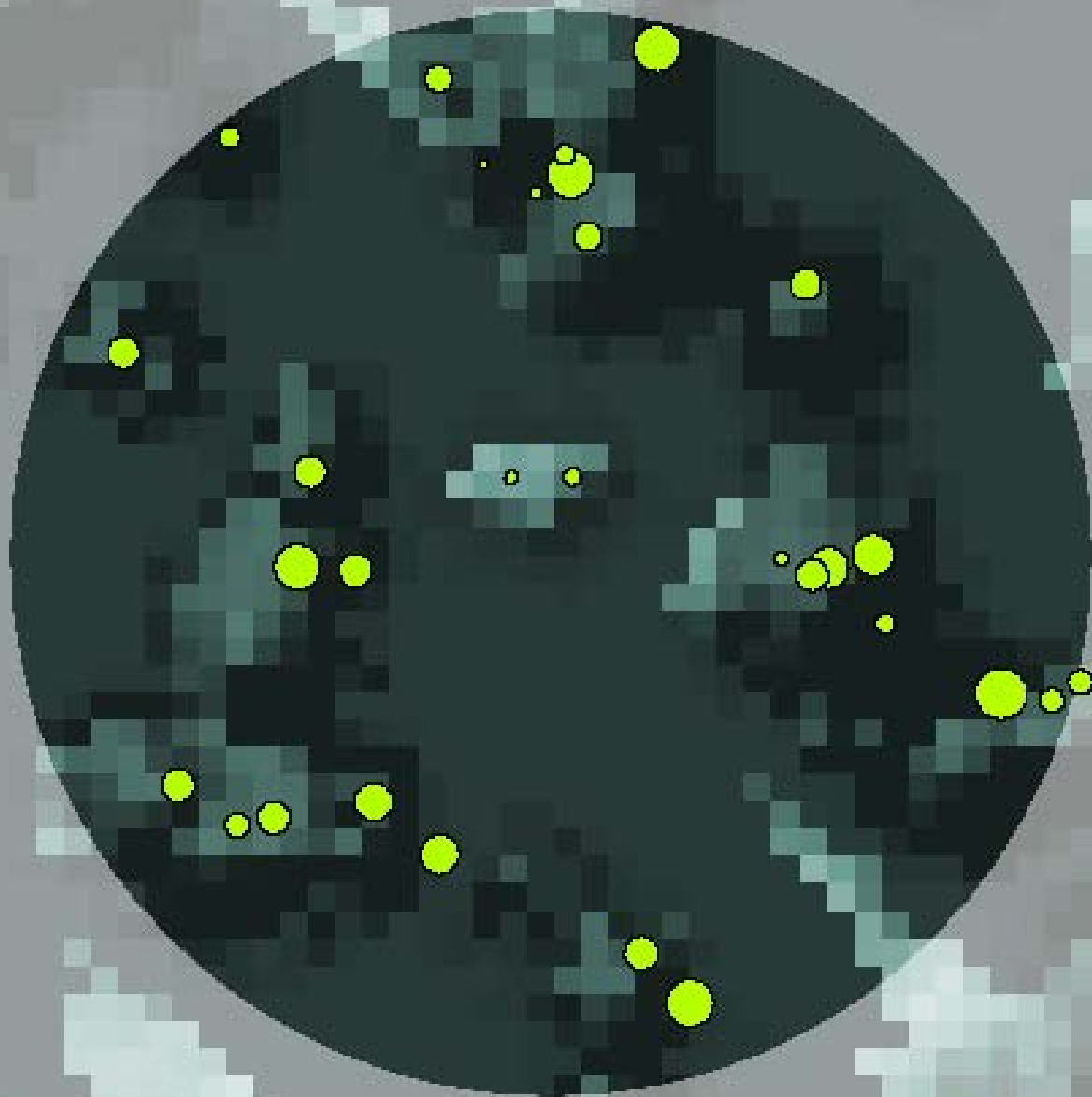












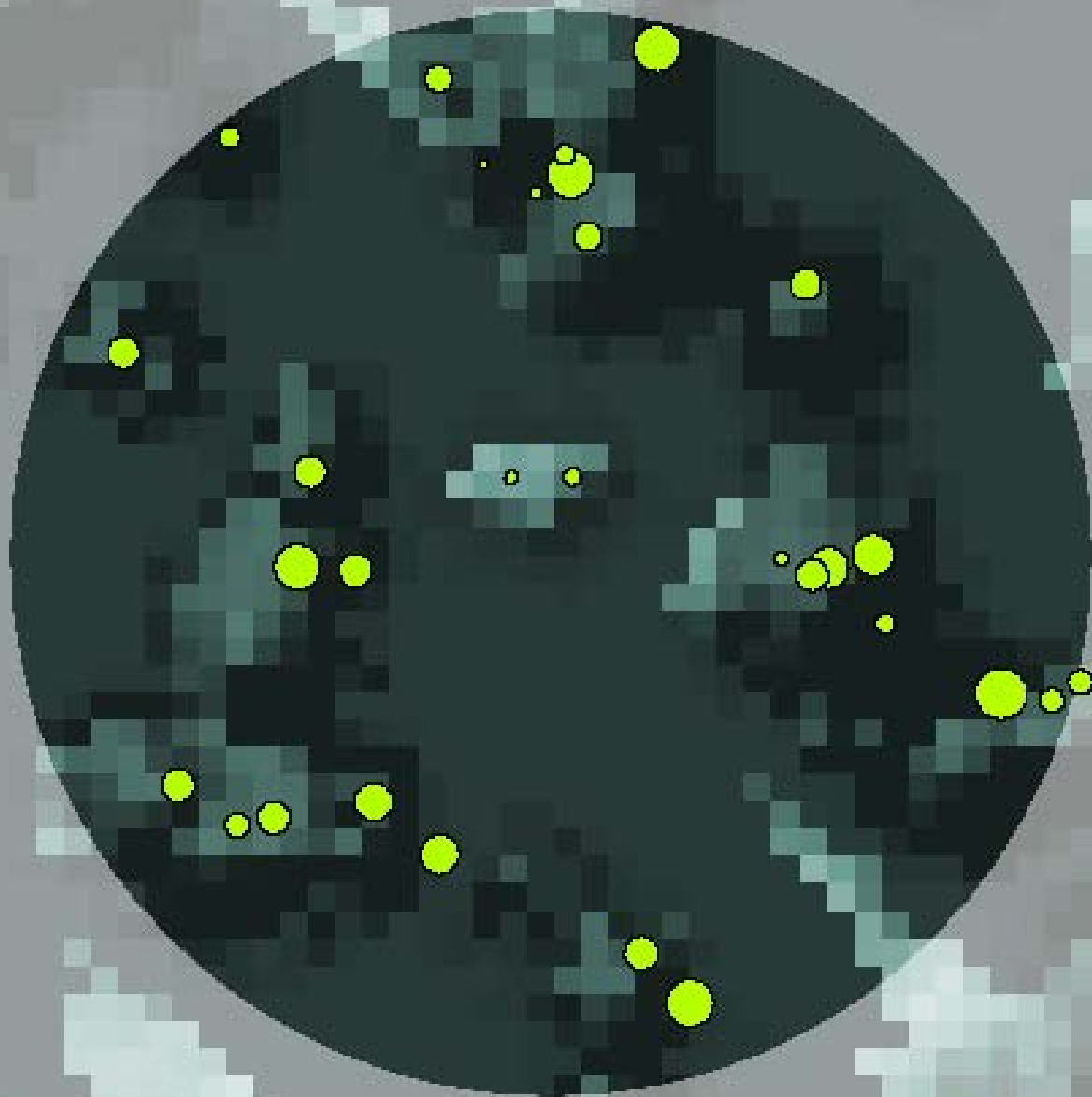
0	3	4	1	2
2	7	8	7	3
1	7	9	8	4
2	6	8	10	6
2	3	6	7	5

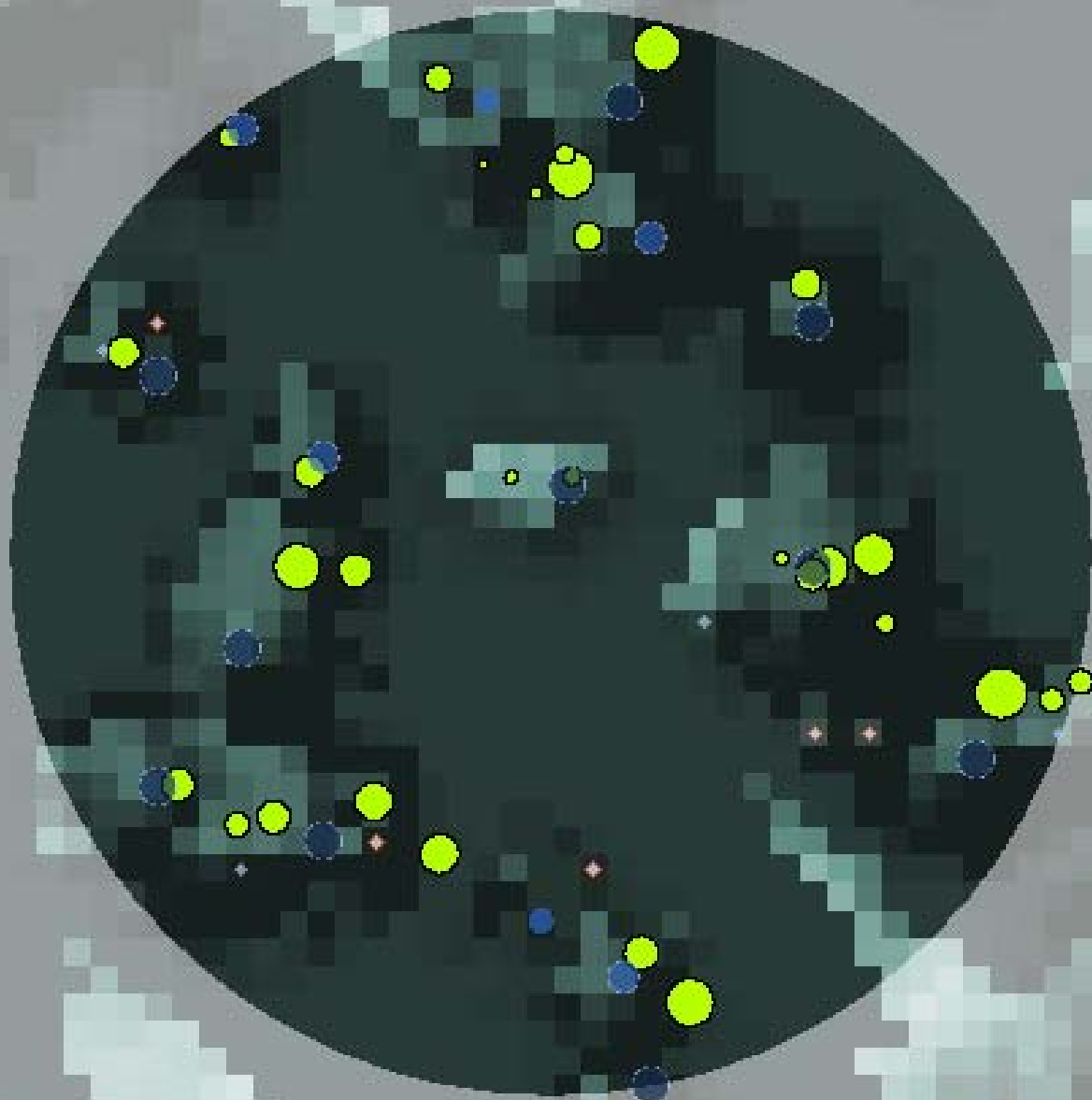
0	0	0	0	0
0	0	0	0	0
0	0	0.5	0	0
0	0	0	0	0
0	0	0	0	0

0	3	4	1	2
2	7	8	7	3
1	7	11	8	4
2	6	8	7	6
2	3	6	7	5

0	0	0	0	0
0	0	0	0	0
0	0	2	0	0
0	0	0	0	0
0	0	0	0	0

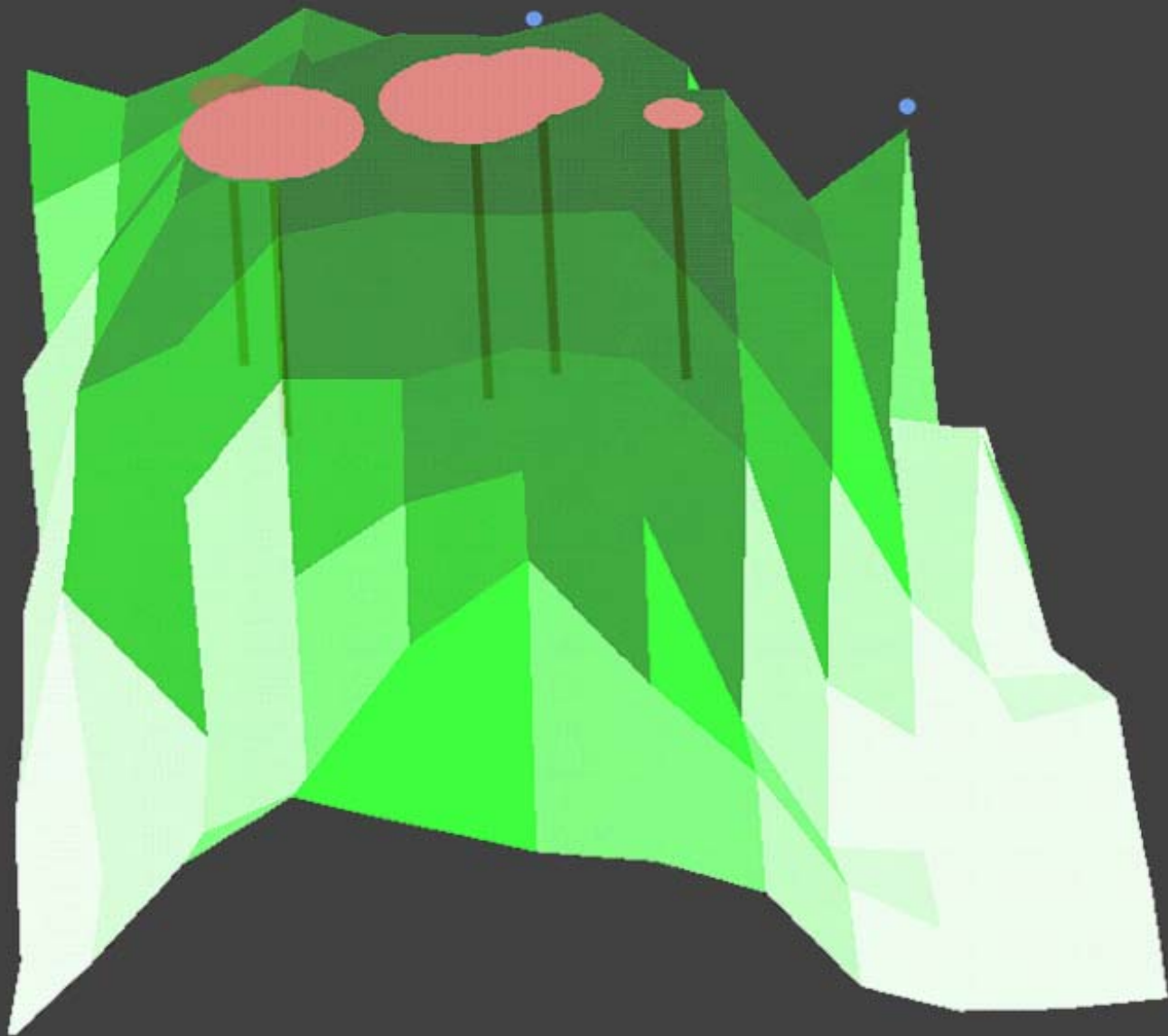
0	0	0	1	0
0	0.5	0	0	0
0	0	2	0	0
0	0	0	0	1
0	4	0	0	0





Tree nr	Species	Measured height (m)	Detected Height (m)				dH
			TWA	2-cell window radius (fixed)	3-cell window radius (fixed)	VWS	
1	Picea abies	29,0					-
2	Picea abies	35,0	35,6	35,6	35,6	35,6	-0,6
3	Picea abies	35,5	40,3	40,3	40,3	40,3	-4,8
4	Picea abies	21,0	18,7	18,7	18,7	18,7	2,3
5	Picea abies	32,0	33,2	33,2	33,2	33,2	-1,2
6	Picea abies	37,0	40,1	40,1	40,1	40,1	-3,1
7	Picea abies	15,0					-
8	Picea abies	22,5					-
9	Picea abies	36,5	31,3				5,2
10	Picea abies	32,5	33,2				-0,7
11	Picea abies	34,0	36,0	36,0	36,0	36,0	-2,0
12	Snag	22,5	35,0	35,0		35,0	-12,5
13	Snag	34,0	35,6	35,6	35,6	35,6	-1,6
14	Picea abies	30,5	34,7	34,7	34,7	34,7	-4,2
15	Picea abies	34,0	33,1	33,1	33,1	33,1	0,9
16	Snag	34,0	30,4	30,0	30,0	30,0	3,6
17	Picea abies	39,0	39,6	39,6	39,6	39,6	-0,6
18	Picea abies	32,5	34,5	34,5			-2,0
19	Picea abies	25,0					-
20	Picea abies	34,0	35,0	35,0	35,0	35,0	-1,0
21	Snag	34,0	35,9	35,8	35,8	35,8	-1,9
22	Picea abies	26,0					-
23	Picea abies	31,0	32,4	32,4	32,4	32,4	-1,4
24	Picea abies	39,5	35,7	35,7	35,7	35,7	3,8
25	Picea abies	26,0	25,0	25,0	25,0	25,0	1,0
26	Picea abies	15,0					-
27	Picea abies	34,0	33,2	33,2	33,2	33,2	0,8
28	Picea abies	8,0					-
29	Picea abies	13,5					-
30	Picea abies	27,0					-
Correctly detected			21/30	19/30	17/30	18/30	
Total trees detected (wrong ones)			25(4)	20(1)	18(1)	20(2)	

TWA: 70% of all trees, 83% of trees with DBH>30cm









For more information

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