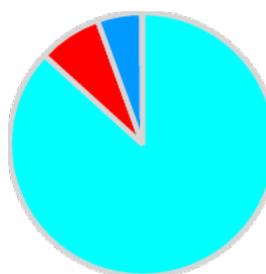


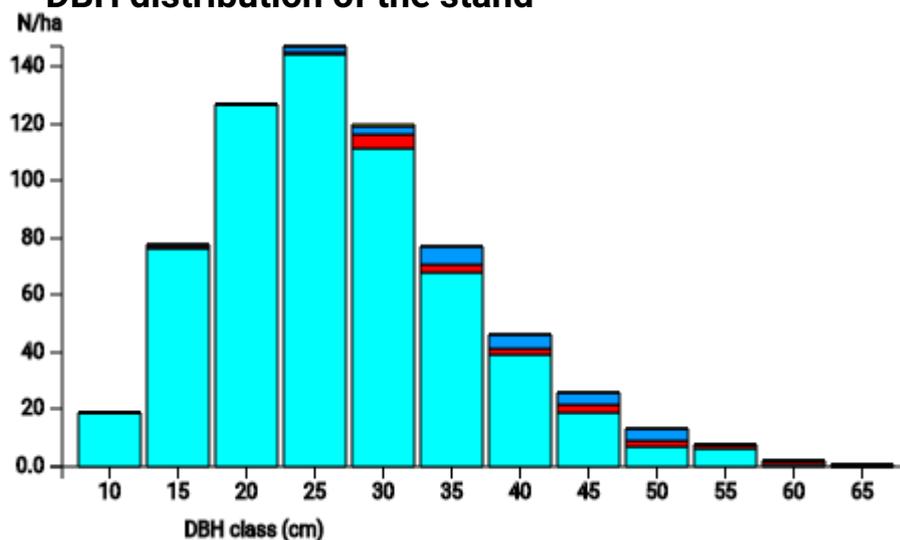
26/02/2021 Gruppo c

**Site conditions**

Altitude: 1270 m.a.s.l.  
 Forest ecological region: Tuscany  
 Geology / Bedrock: Sandstone  
 Soil type: Brown podzolic soil  
 Natural forest community:  
 Asperulo-Fagetum  
 Mean annual temperature: 8.7 C;  
 Mean annual precipitation: 1642  
 mm; Ownership: State;  
 Establishment: 2020

**Tree species distribution by volume (in %)**

common beech: 86.8 %  
 silver fir: 7.7 %  
 sycamore maple: 5.4 %  
 goat willow: 0.1 %

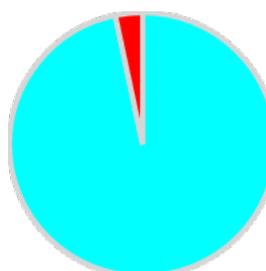
**DBH distribution of the stand****Initial stand (details by tree species)**

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	617	44.3	484	41247	19808	1283
goat willow	1	0.1	0.8	70	24	3
silver fir	21	3.3	43.1	3060	245	25
sycamore maple	25	3.2	29.9	2409	1664	99
Total	664	50.8	557.9	46786	21741	1410

### Removed trees

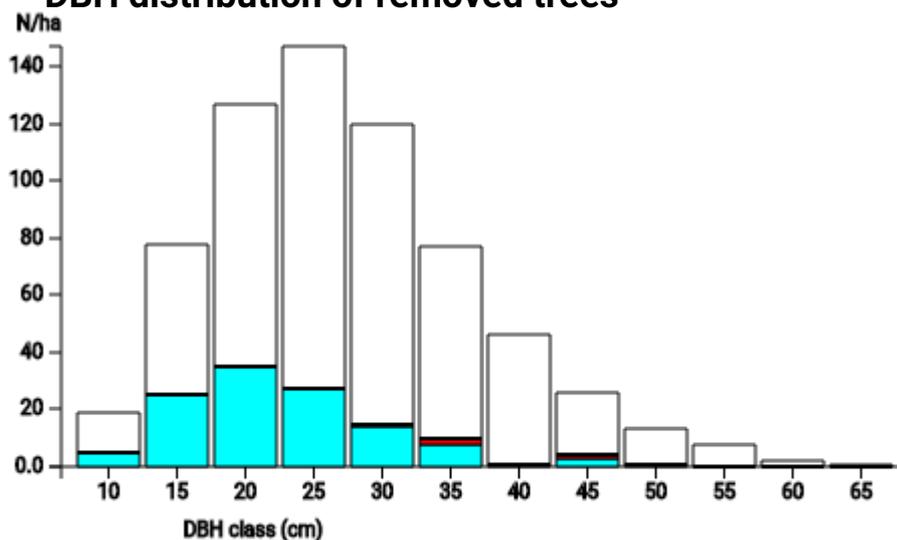
Volume: 74.3 m<sup>3</sup>  
 Basal area: 6.9 m<sup>2</sup>  
 Economic value: 6272 €  
 Habitat value: 2628 pts.

### Removed trees (N in %)



- common beech: 96.7 %
- silver fir: 3.3 %
- sycamore maple: 0 %
- goat willow: 0 %

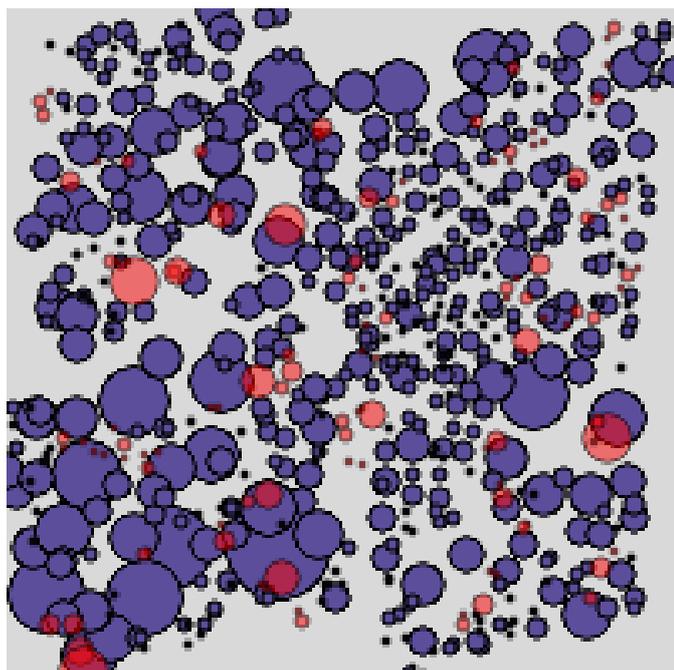
### DBH distribution of removed trees



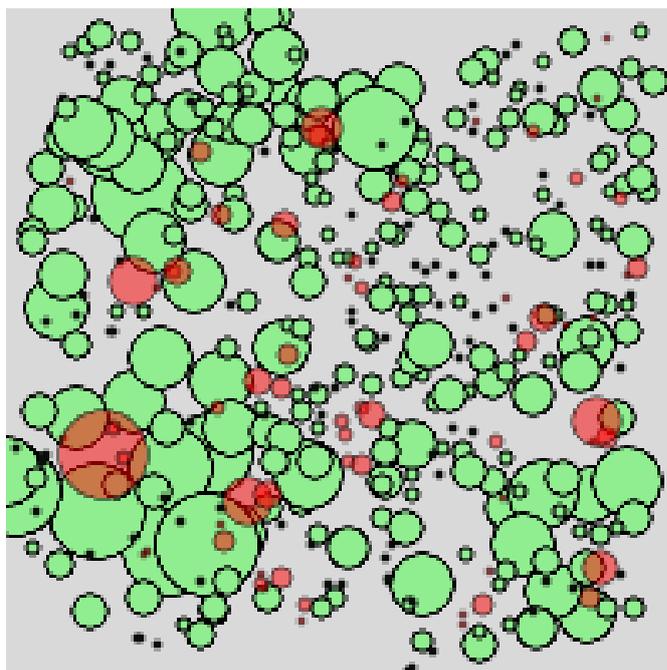
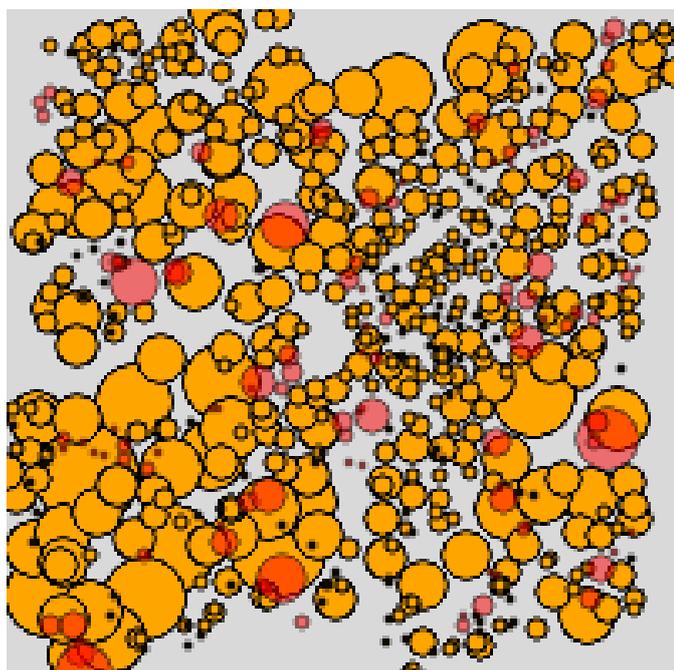
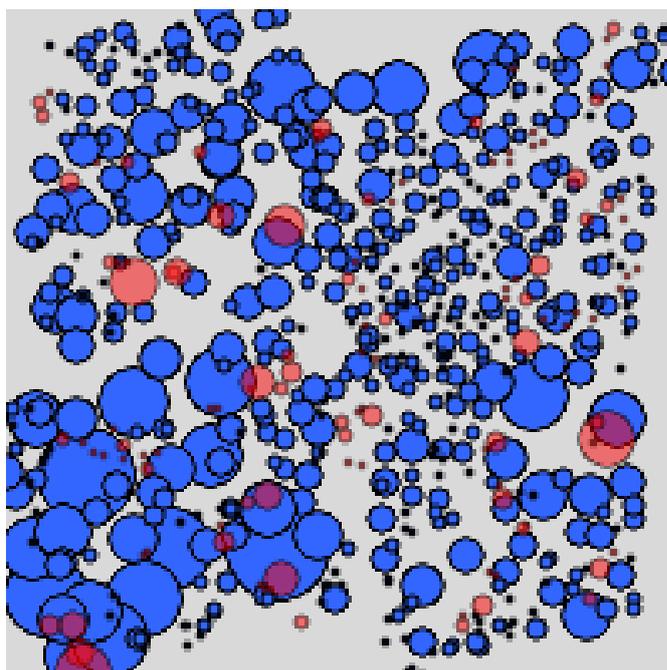
### Removed trees (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	119	6.5	68.1	5789	2612	177
goat willow	0	0	0	0	0	0
silver fir	4	0.5	6.3	483	16	4
sycamore maple	0	0	0	0	0	0
<b>Total</b>	<b>123</b>	<b>6.9</b>	<b>74.3</b>	<b>6272</b>	<b>2628</b>	<b>181</b>

Economic value [EUR]



Habitat value

Basal area [m<sup>2</sup>]Volume [m<sup>3</sup>]**Description:**

Red circles (removed trees); circle size according to numerical values (e.g. large circles mean high values); trees with very low values (e.g. habitat value "0") are not visible.

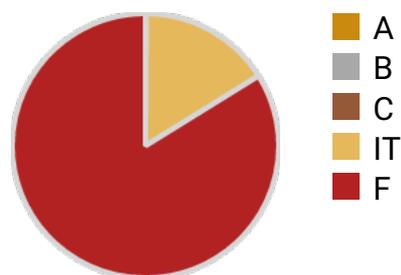
### Economic values

Total value of removed trees: 6272 €  
 Percentage of total stand value: 13.4 %  
 Stand value after harvest: 40515 €

### Economic value by tree species [€]

Tree species	Total	Per m <sup>3</sup>
common beech	5789	85
silver fir	483	77
sycamore maple	0	0
goat willow	0	0
<b>Total</b>	<b>6272</b>	<b>84</b>

### Wood quality distribution (m<sup>3</sup> in %)



Quality class	m <sup>3</sup>	%
A	0	0
B	0	0
C	0.1	0.1
Industrial Timber	11.9	16
Fuelwood	62.3	83.9

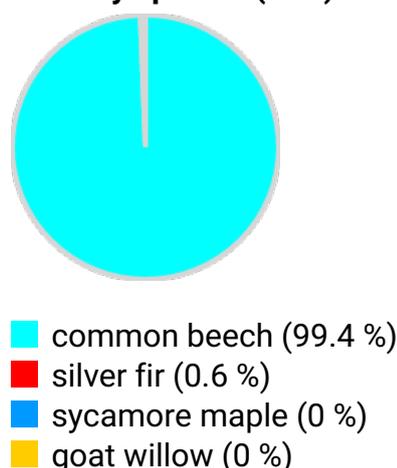
### Habitat values

Total habitat value of removed trees: 2628 pts.  
 Percentage of total stand value: 12.1 %  
 Stand value after harvest: 19113 pts.

### Habitat value by tree species [pts.]

Tree species	Total	Per m <sup>3</sup>	Microhabitats [N]
common beech	2612	38.4	177
silver fir	16	2.5	4
sycamore maple	0	0	0
goat willow	0	0	0
<b>Total</b>	<b>2628</b>	<b>35.3</b>	<b>181</b>

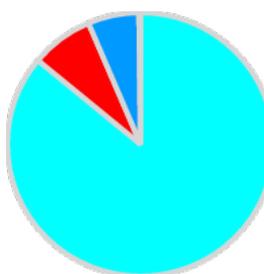
### Habitat value (points) of removed trees by species (in %)



### Remaining stand

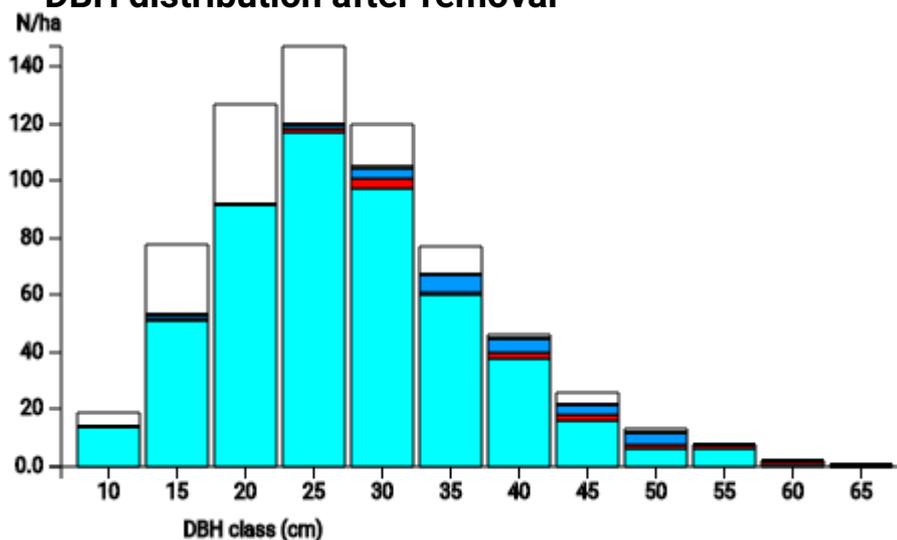
Volume: 483.5 m<sup>3</sup>  
 Basal area: 43.9 m<sup>2</sup>  
 Economic value: 40515 €  
 Habitat value: 19113 pts.

### Remaining trees by volume (m<sup>3</sup> in %)



- common beech: 86 %
- silver fir: 7.6 %
- sycamore maple: 6.2 %
- goat willow: 0.2 %

### DBH distribution after removal



### Remaining stand (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	498	37.8	415.9	35458	17196	1106
goat willow	1	0.1	0.8	70	24	3
silver fir	17	2.8	36.8	2578	229	21
sycamore maple	25	3.2	29.9	2409	1664	99
<b>Total</b>	<b>541</b>	<b>43.9</b>	<b>483.5</b>	<b>40515</b>	<b>19113</b>	<b>1229</b>

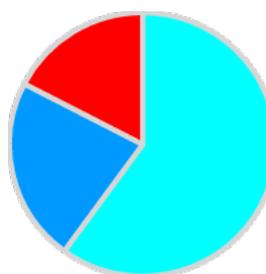
**Retention trees**Volume: 62.4 m<sup>3</sup>

Elite trees: 31

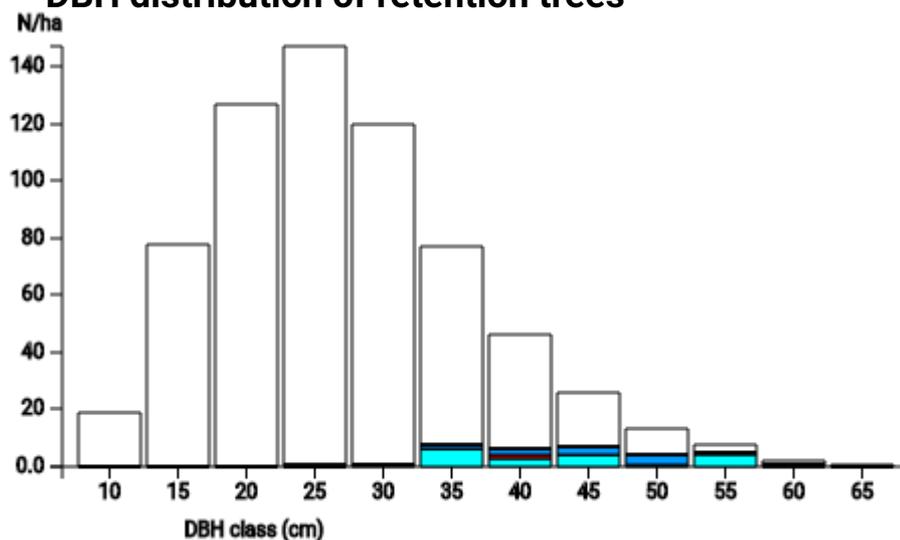
Habitat trees: 0

Economic value: 5141 €

Habitat value: 2306 pts.

**Retention trees by volume (m<sup>3</sup> in %)**

- common beech: 60 %
- sycamore maple: 22.6 %
- silver fir: 17.4 %
- goat willow: 0 %

**DBH distribution of retention trees****Retained trees (details by tree species)**

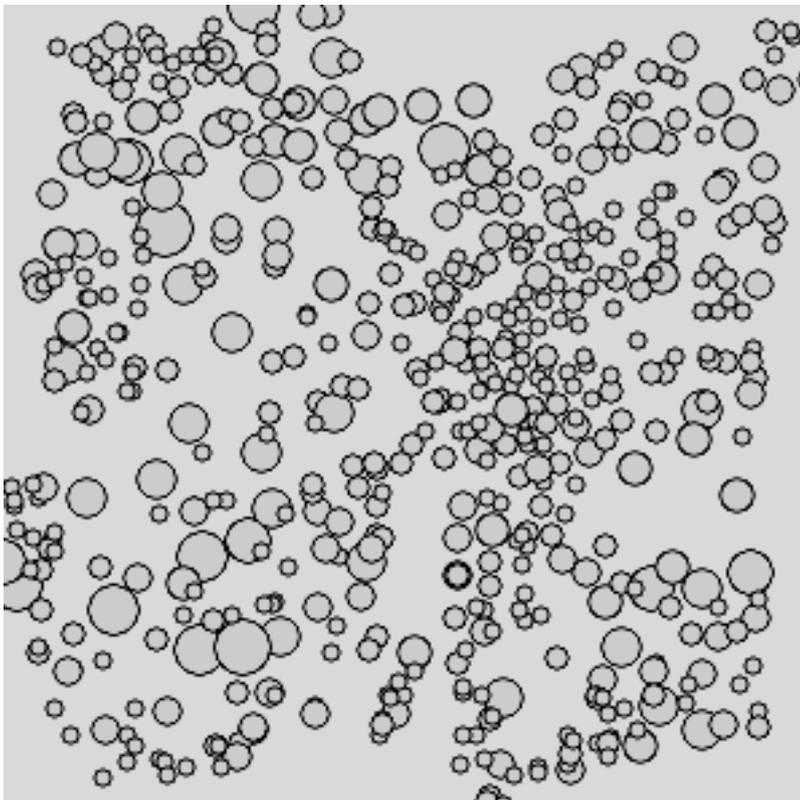
Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	19	3.1	37.4	3180	1304	96
goat willow	0	0	0	0	0	0
silver fir	3	0.7	10.9	764	10	2
sycamore maple	11	1.7	14.1	1197	992	52
<b>Total</b>	<b>33</b>	<b>5.6</b>	<b>62.4</b>	<b>5141</b>	<b>2306</b>	<b>150</b>

Number of habitat trees	[N]	0
Habitat value	pts.	0
	[% of total]	0
Economic value	[€]	0
	[% of total]	0
Number of microhabitats	[N]	0
	[% of total]	0

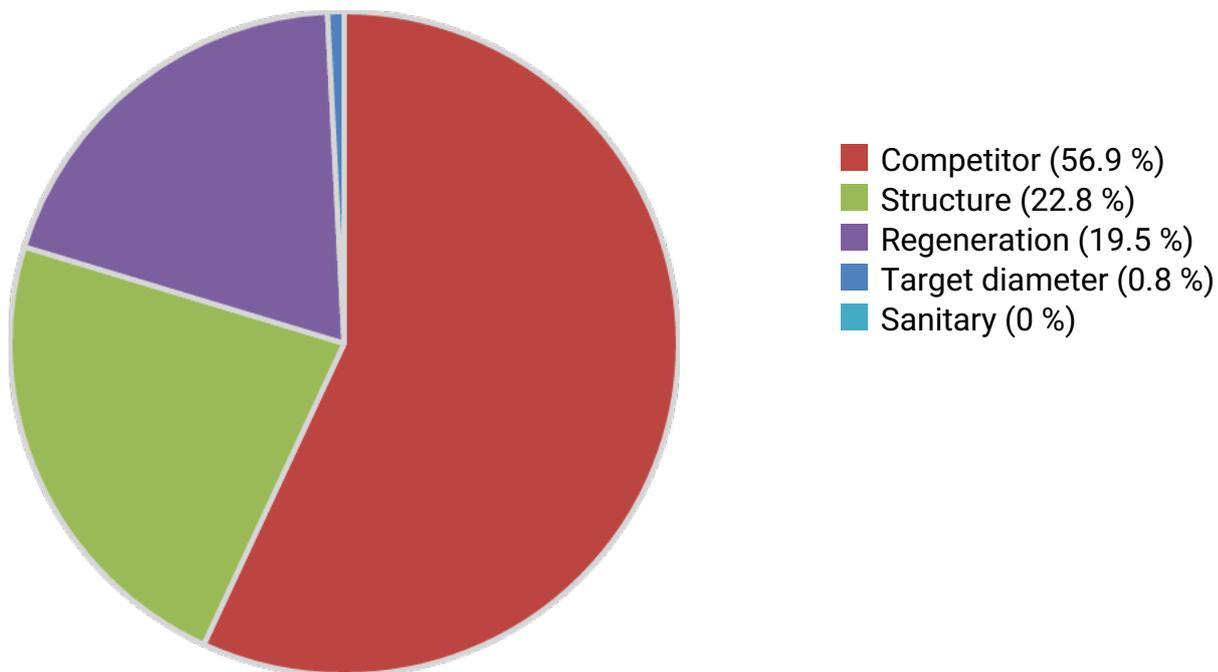
### Habitat tree distribution by species (N in %)

-  common beech: NaN %
-  silver fir: NaN %
-  sycamore maple: NaN %
-  goat willow: NaN %

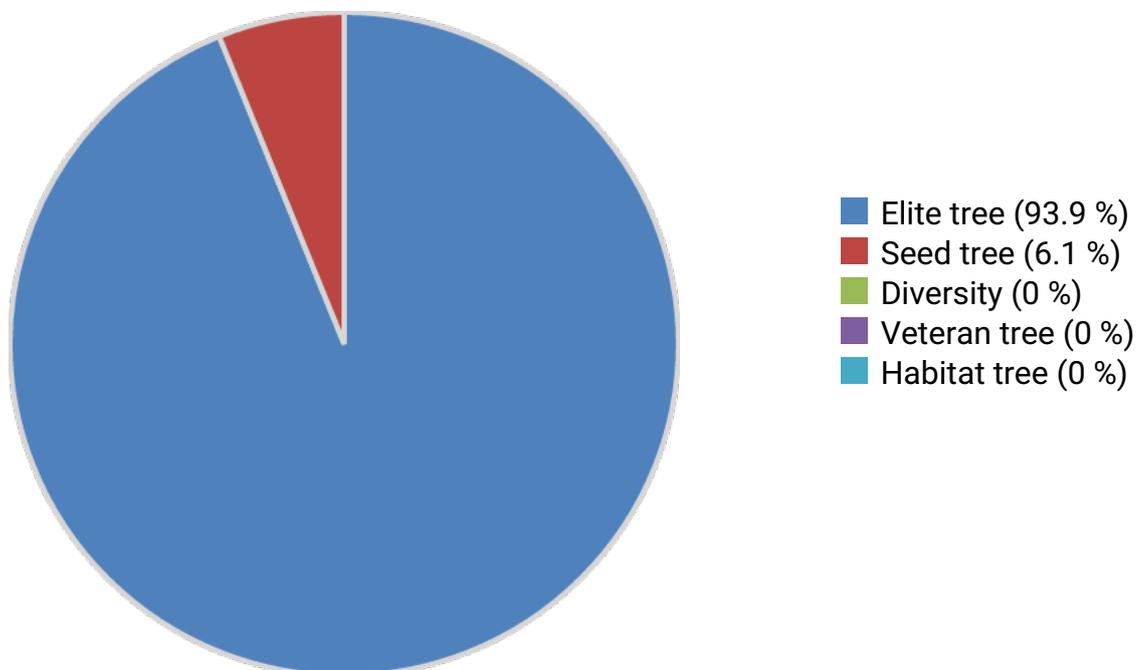
### Spatial distribution of habitat trees



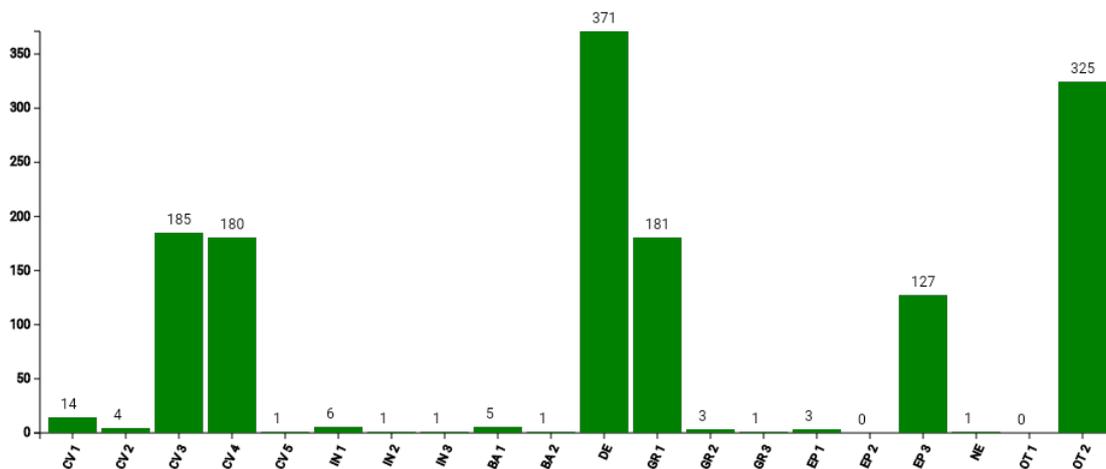
### Reasons for removal



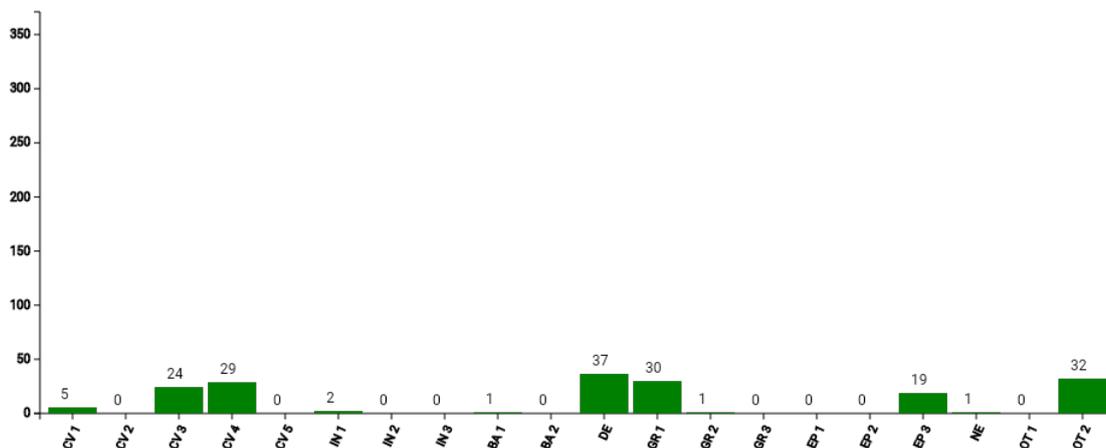
### Reasons for retention



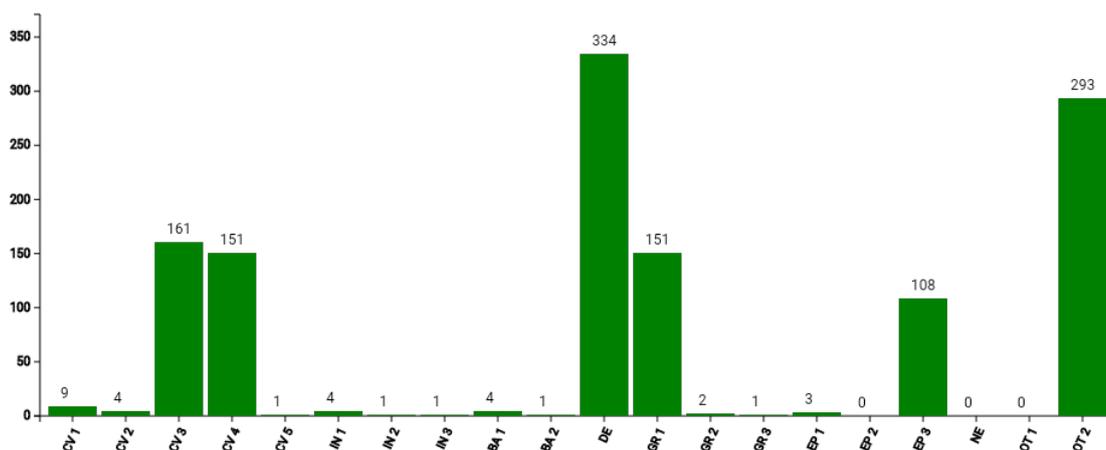
### Distribution of tree microhabitats by code (N total)



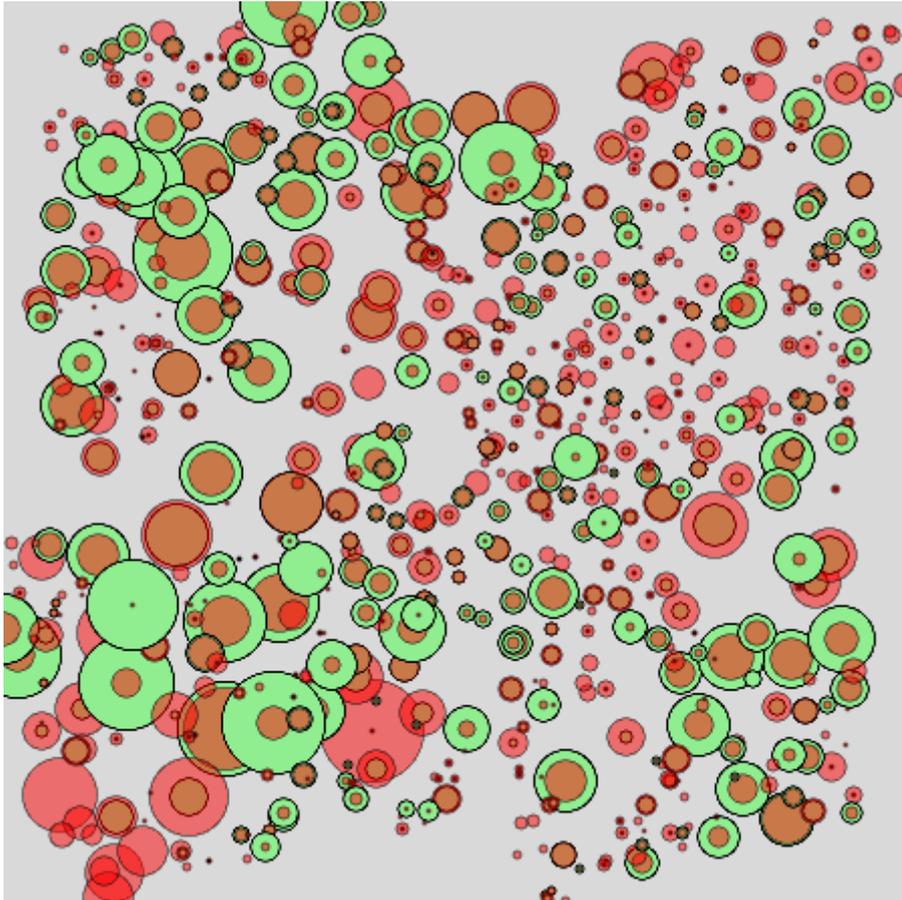
### Removed tree microhabitats by code (N removed)



### Remaining tree microhabitats by code (N after harvest)



For more details on codes consult the field guide "Catalogue of tree microhabitats" or the tree microhabitat app.

**Conflict trees (stand data)****Description:**

Overlay of economic and habitat value: red circles (economic value), green circles (habitat value); circle size according to numerical values (e.g. large circles mean high values); trees with very low values are not visible. Trees where both values overlap considerably represent so called "conflict trees".

## Removed trees

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (514) Fagus sylvatica	50.2	0.2	2.4	205	51	Competitor
silver fir (500) Abies alba	48.3	0.18	2.6	204	4	Competitor
common beech (299) Fagus sylvatica	46.2	0.17	2.1	180	105	Regeneration
common beech (225) Fagus sylvatica	45.6	0.16	2	168	65	Competitor
common beech (391) Fagus sylvatica	45.2	0.16	1.7	144	44	Competitor
common beech (382) Fagus sylvatica	40	0.13	1.5	130	64	Regeneration
common beech (376) Fagus sylvatica	39.8	0.12	1.3	108	64	Competitor
common beech (548) Fagus sylvatica	39	0.12	1.2	107	39	Competitor
common beech (643) Fagus sylvatica	38.7	0.12	1.1	96	55	Competitor
common beech (257) Fagus sylvatica	37.2	0.11	1.1	97	39	Competitor
silver fir (482) Abies alba	36.6	0.11	1.3	76	4	Competitor
common beech (525) Fagus sylvatica	36.4	0.1	1.1	96	72	Competitor
silver fir (499) Abies alba	36.1	0.1	1.3	112	4	Competitor
common beech (565) Fagus sylvatica	35.8	0.1	1.1	95	27	Competitor
common beech (574) Fagus sylvatica	35	0.1	1.1	90	8	Competitor
common beech (275) Fagus sylvatica	35	0.1	1.2	101	62	Competitor
common beech (418) Fagus sylvatica	34.9	0.1	1.1	90	52	Competitor
common beech (319) Fagus sylvatica	34.8	0.1	0.9	77	12	Competitor
common beech (58) Fagus sylvatica	33.6	0.09	1	89	0	Competitor
common beech (174) Fagus sylvatica	33	0.09	0.9	77	99	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (363) Fagus sylvatica	33	0.09	1	85	3	Structure
common beech (40) Fagus sylvatica	32.8	0.08	1	83	36	Competitor
common beech (597) Fagus sylvatica	31.8	0.08	1	85	39	Structure
common beech (346) Fagus sylvatica	31.5	0.08	0.7	60	48	Structure
common beech (169) Fagus sylvatica	31.3	0.08	0.8	70	0	Competitor
common beech (256) Fagus sylvatica	31.2	0.08	0.7	63	44	Structure
silver fir (498) Abies alba	31	0.08	1	91	4	Competitor
common beech (73) Fagus sylvatica	30.4	0.07	0.7	61	0	Competitor
common beech (175) Fagus sylvatica	30.3	0.07	0.8	65	43	Competitor
common beech (527) Fagus sylvatica	30.2	0.07	0.7	60	47	Competitor
common beech (400) Fagus sylvatica	30.1	0.07	0.7	59	108	Regeneration
common beech (20) Fagus sylvatica	29	0.07	0.7	63	0	Structure
common beech (42) Fagus sylvatica	28.8	0.07	0.7	61	8	Competitor
common beech (307) Fagus sylvatica	28.8	0.07	0.7	60	6	Regeneration
common beech (650) Fagus sylvatica	28.7	0.07	0.7	58	36	Competitor
common beech (104) Fagus sylvatica	28.5	0.06	0.7	60	12	Competitor
common beech (276) Fagus sylvatica	28.5	0.06	0.7	59	32	Competitor
common beech (193) Fagus sylvatica	28.5	0.06	0.7	57	12	Competitor
common beech (520) Fagus sylvatica	28.5	0.06	0.6	46	110	Competitor
common beech (651) Fagus sylvatica	28	0.06	0.6	52	32	Regeneration

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (27) Fagus sylvatica	27.6	0.06	0.6	54	6	Competitor
common beech (451) Fagus sylvatica	27.4	0.06	0.6	50	21	Regeneration
common beech (337) Fagus sylvatica	27.1	0.06	0.6	51	0	Competitor
common beech (603) Fagus sylvatica	27	0.06	0.7	55	12	Structure
common beech (434) Fagus sylvatica	26.9	0.06	0.7	58	6	Regeneration
common beech (446) Fagus sylvatica	26.9	0.06	0.6	53	0	Regeneration
common beech (336) Fagus sylvatica	26.7	0.06	0.5	45	6	Competitor
common beech (281) Fagus sylvatica	26.2	0.05	0.6	54	0	Competitor
common beech (36) Fagus sylvatica	26.1	0.05	0.6	48	0	Competitor
common beech (189) Fagus sylvatica	26	0.05	0.5	46	6	Structure
common beech (365) Fagus sylvatica	26	0.05	0.5	45	39	Structure
common beech (560) Fagus sylvatica	25.7	0.05	0.6	47	0	Competitor
common beech (76) Fagus sylvatica	25.6	0.05	0.5	45	0	Competitor
common beech (335) Fagus sylvatica	25.6	0.05	0.5	40	0	Competitor
common beech (15) Fagus sylvatica	25.3	0.05	0.5	43	30	Structure
common beech (154) Fagus sylvatica	25.2	0.05	0.5	42	48	Competitor
common beech (81) Fagus sylvatica	25.2	0.05	0.5	44	6	Competitor
common beech (521) Fagus sylvatica	25.1	0.05	0.5	40	12	Competitor
common beech (518) Fagus sylvatica	24.9	0.05	0.5	41	8	Competitor
common beech (12) Fagus sylvatica	24.8	0.05	0.5	44	11	Structure

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (394) Fagus sylvatica	24.7	0.05	0.6	48	12	Structure
common beech (88) Fagus sylvatica	24.5	0.05	0.5	43	0	Structure
common beech (75) Fagus sylvatica	24.3	0.05	0.5	39	12	Target diameter
common beech (198) Fagus sylvatica	24.2	0.05	0.4	38	0	Structure
common beech (445) Fagus sylvatica	23.9	0.05	0.5	40	36	Regeneration
common beech (297) Fagus sylvatica	23.9	0.05	0.5	38	0	Regeneration
common beech (458) Fagus sylvatica	23.8	0.04	0.5	43	12	Regeneration
common beech (37) Fagus sylvatica	23.7	0.04	0.5	41	0	Competitor
common beech (533) Fagus sylvatica	23.4	0.04	0.5	39	20	Competitor
common beech (397) Fagus sylvatica	23.3	0.04	0.4	32	36	Competitor
common beech (191) Fagus sylvatica	23.3	0.04	0.5	41	30	Competitor
common beech (68) Fagus sylvatica	23.3	0.04	0.4	35	36	Structure
common beech (398) Fagus sylvatica	23.3	0.04	0.5	39	12	Competitor
common beech (44) Fagus sylvatica	23.2	0.04	0.4	38	0	Competitor
common beech (45) Fagus sylvatica	23.2	0.04	0.4	35	16	Structure
common beech (512) Fagus sylvatica	22.7	0.04	0.5	40	0	Competitor
common beech (310) Fagus sylvatica	22.4	0.04	0.4	31	0	Competitor
common beech (448) Fagus sylvatica	22.2	0.04	0.4	34	28	Regeneration
common beech (405) Fagus sylvatica	22.2	0.04	0.4	30	6	Competitor
common beech (14) Fagus sylvatica	22	0.04	0.4	32	0	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (9) Fagus sylvatica	22	0.04	0.3	29	52	Structure
common beech (653) Fagus sylvatica	21.8	0.04	0.4	32	39	Regeneration
common beech (452) Fagus sylvatica	21.6	0.04	0.4	30	0	Regeneration
common beech (652) Fagus sylvatica	21.6	0.04	0.4	32	33	Structure
common beech (381) Fagus sylvatica	21.2	0.04	0.3	26	20	Competitor
common beech (604) Fagus sylvatica	21.1	0.04	0.4	31	12	Structure
common beech (56) Fagus sylvatica	21	0.04	0.3	28	64	Competitor
common beech (571) Fagus sylvatica	21	0.04	0.4	32	6	Competitor
common beech (90) Fagus sylvatica	21	0.04	0.3	26	0	Competitor
common beech (11) Fagus sylvatica	20.5	0.03	0.3	26	0	Structure
common beech (205) Fagus sylvatica	20.5	0.03	0.3	28	0	Structure
common beech (298) Fagus sylvatica	20.4	0.03	0.3	29	0	Regeneration
common beech (69) Fagus sylvatica	20.3	0.03	0.3	28	6	Competitor
common beech (573) Fagus sylvatica	19.8	0.03	0.3	28	0	Competitor
common beech (194) Fagus sylvatica	19.6	0.03	0.3	23	24	Structure
common beech (453) Fagus sylvatica	19.4	0.03	0.3	29	0	Regeneration
common beech (80) Fagus sylvatica	19.4	0.03	0.3	24	0	Competitor
common beech (404) Fagus sylvatica	19.2	0.03	0.3	25	36	Competitor
common beech (644) Fagus sylvatica	19.2	0.03	0.3	21	0	Competitor
common beech (582) Fagus sylvatica	19	0.03	0.3	26	0	Structure

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (63) Fagus sylvatica	19	0.03	0.3	22	0	Competitor
common beech (645) Fagus sylvatica	18.9	0.03	0.3	23	36	Competitor
common beech (416) Fagus sylvatica	18.8	0.03	0.3	23	12	Competitor
common beech (146) Fagus sylvatica	18.5	0.03	0.2	19	24	Structure
common beech (196) Fagus sylvatica	18.1	0.03	0.3	22	0	Structure
common beech (561) Fagus sylvatica	17.2	0.02	0.2	21	3	Competitor
common beech (72) Fagus sylvatica	17	0.02	0.2	19	0	Competitor
common beech (454) Fagus sylvatica	16.8	0.02	0.2	20	202	Regeneration
common beech (507) Fagus sylvatica	16.7	0.02	0.1	11	0	Structure
common beech (583) Fagus sylvatica	16.6	0.02	0.2	18	14	Structure
common beech (470) Fagus sylvatica	16.2	0.02	0.2	18	0	Regeneration
common beech (427) Fagus sylvatica	16	0.02	0.2	18	0	Regeneration
common beech (432) Fagus sylvatica	15.9	0.02	0.1	12	0	Regeneration
common beech (457) Fagus sylvatica	15.9	0.02	0.2	20	12	Regeneration
common beech (393) Fagus sylvatica	15.8	0.02	0.2	16	0	Structure
common beech (563) Fagus sylvatica	15.8	0.02	0.2	13	6	Competitor
common beech (433) Fagus sylvatica	15.6	0.02	0.2	18	0	Regeneration
common beech (388) Fagus sylvatica	15.3	0.02	0.2	14	0	Competitor
common beech (392) Fagus sylvatica	14.5	0.02	0.2	13	36	Structure
common beech (277) Fagus sylvatica	14.5	0.02	0.1	13	12	Regeneration

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (399) Fagus sylvatica	14.4	0.02	0.1	11	16	Competitor
common beech (401) Fagus sylvatica	14.4	0.02	0.1	10	6	Competitor
common beech (447) Fagus sylvatica	12	0.01	0.1	6	0	Regeneration

**Retention trees**

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
silver fir (390) Abies alba	63.2	0.31	4.7	411	6	Elite tree
silver fir (481) Abies alba	59.6	0.28	4	226	4	Seed tree
common beech (546) Fagus sylvatica	58	0.26	3.1	264	96	Elite tree
common beech (459) Fagus sylvatica	57.7	0.26	3.6	306	82	Elite tree
common beech (430) Fagus sylvatica	57.1	0.26	3.2	272	134	Elite tree
common beech (406) Fagus sylvatica	55.7	0.24	3	251	135	Elite tree
sycamore maple (358) Acer pseudoplatanus	53	0.22	1.4	120	68	Elite tree
sycamore maple (575) Acer pseudoplatanus	52	0.21	1.4	120	88	Elite tree
common beech (515) Fagus sylvatica	50.1	0.2	2.5	215	84	Elite tree
sycamore maple (292) Acer pseudoplatanus	50	0.2	1.4	121	0	Elite tree
common beech (320) Fagus sylvatica	49.7	0.19	2.2	190	66	Elite tree
common beech (236) Fagus sylvatica	49.3	0.19	2.3	196	93	Elite tree
sycamore maple (260) Acer pseudoplatanus	47.6	0.18	1.4	122	134	Elite tree
common beech (629) Fagus sylvatica	46.8	0.17	2	166	136	Elite tree
common beech (172) Fagus sylvatica	46.5	0.17	2	176	98	Elite tree
sycamore maple (468) Acer pseudoplatanus	46.1	0.17	1.4	120	208	Elite tree
sycamore maple (417) Acer pseudoplatanus	46	0.17	1.4	120	136	Elite tree
sycamore maple (89) Acer pseudoplatanus	44	0.15	1.4	122	52	Elite tree
silver fir (483) Abies alba	44	0.15	2.2	127	0	Seed tree
common beech (534) Fagus sylvatica	42.2	0.14	1.5	130	38	Elite tree

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (170) Fagus sylvatica	41.8	0.14	1.5	129	81	Elite tree
sycamore maple (359) Acer pseudoplatanus	41	0.13	1.4	120	148	Elite tree
common beech (71) Fagus sylvatica	40.5	0.13	1.5	128	6	Elite tree
common beech (62) Fagus sylvatica	39	0.12	1.3	112	15	Elite tree
sycamore maple (240) Acer pseudoplatanus	38.6	0.12	1.1	91	18	Elite tree
common beech (176) Fagus sylvatica	38	0.11	1.4	121	36	Elite tree
common beech (192) Fagus sylvatica	37.8	0.11	1.3	114	36	Elite tree
common beech (622) Fagus sylvatica	37.7	0.11	1.5	125	113	Elite tree
common beech (315) Fagus sylvatica	36.9	0.11	1.1	93	10	Elite tree
common beech (511) Fagus sylvatica	36.7	0.11	1.3	109	9	Elite tree
sycamore maple (43) Acer pseudoplatanus	35.2	0.1	1	87	88	Elite tree
common beech (28) Fagus sylvatica	34.1	0.09	1	83	36	Elite tree
sycamore maple (25) Acer pseudoplatanus	27.9	0.06	0.6	55	52	Elite tree