

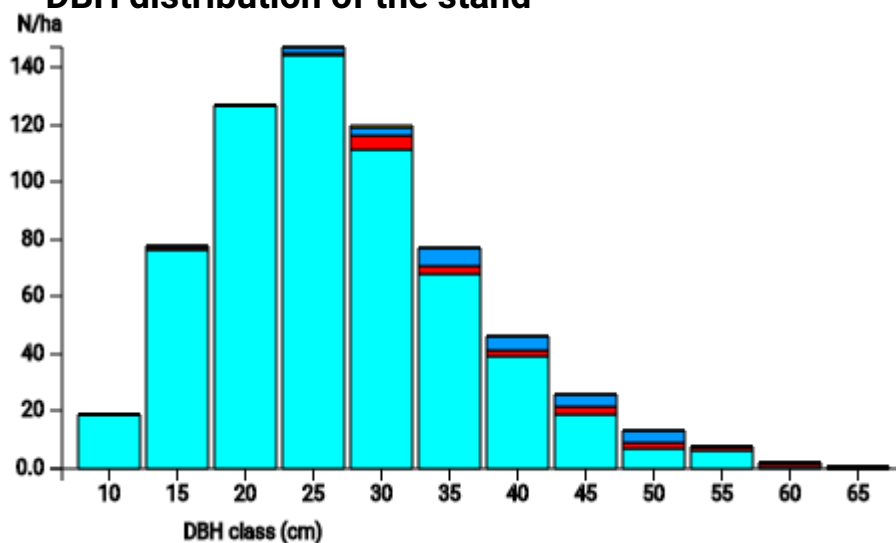
02/03/2021 Gruppo D turno2

**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

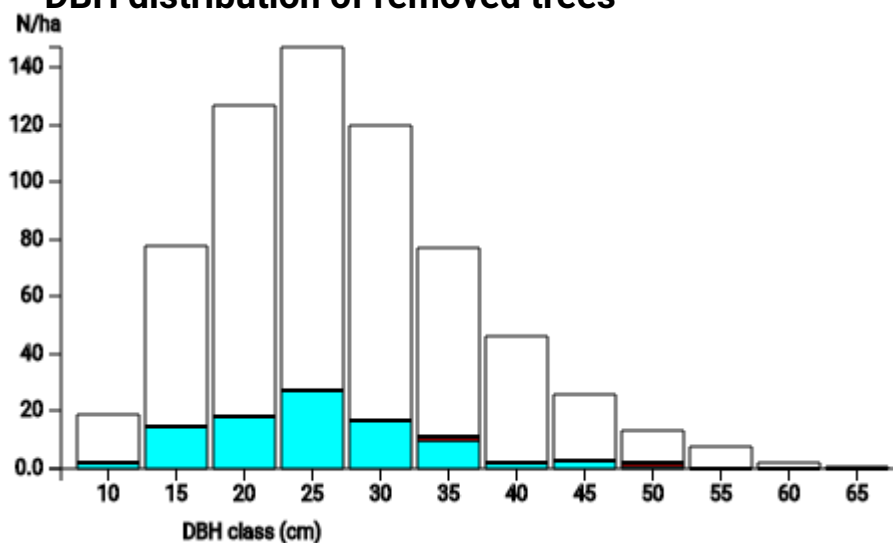
Volume: 71.1 m<sup>3</sup>  
 Basal area: 6.5 m<sup>2</sup>  
 Economic value: 5964 €  
 Habitat value: 2457 pts.

### Removed trees (N in %)



- common beech: 97.9 %
- silver fir: 2.1 %
- sycamore maple: 0 %
- goat willow: 0 %

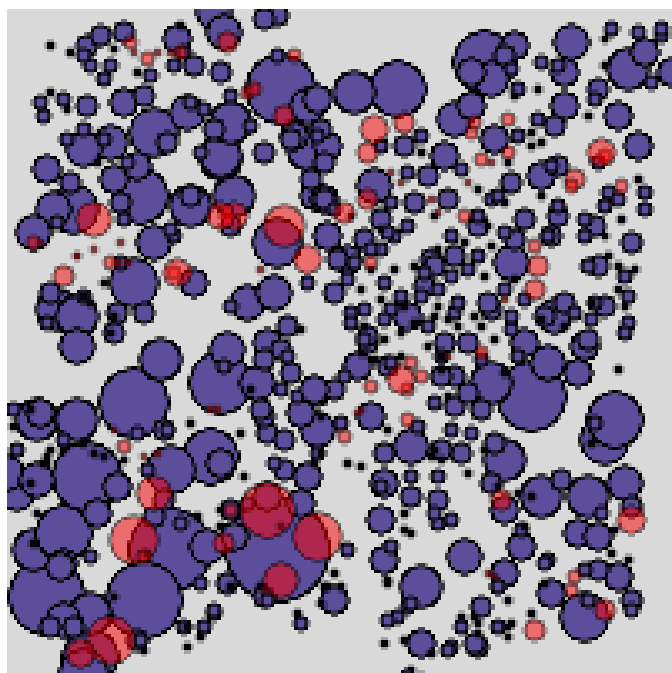
### DBH distribution of removed trees



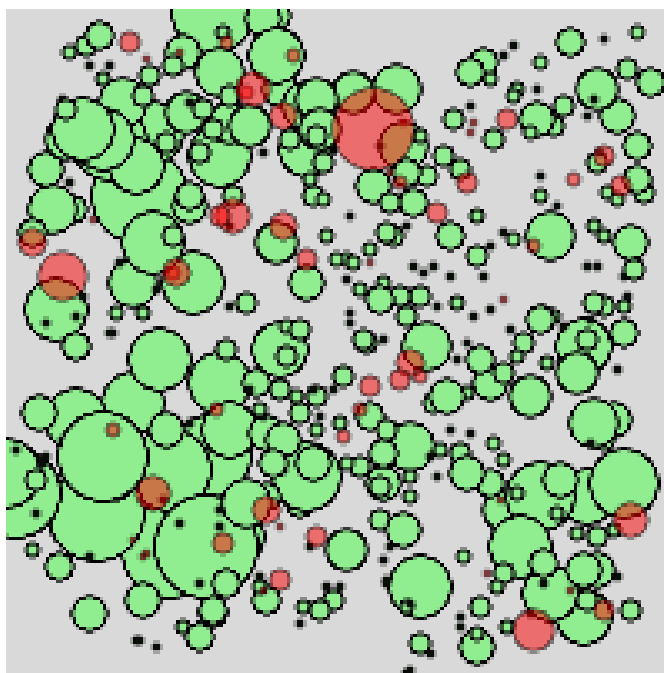
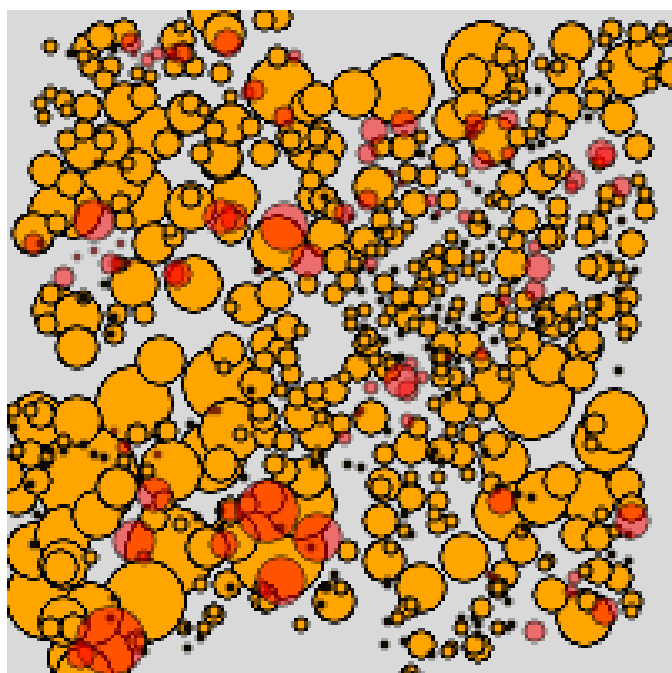
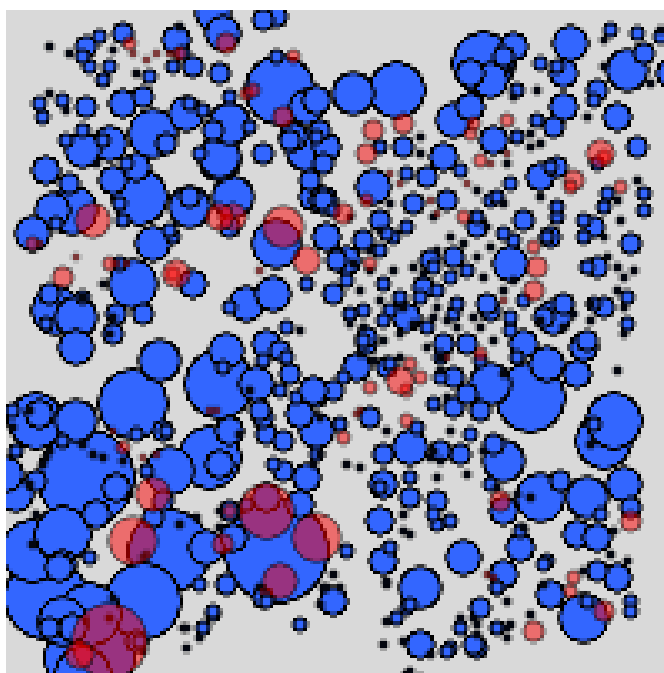
### Removed trees (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	95	6.1	66.4	5655	2453	162
goat willow	0	0	0	0	0	0
silver fir	2	0.3	4.8	309	4	1
sycamore maple	0	0	0	0	0	0
<b>Total</b>	<b>97</b>	<b>6.5</b>	<b>71.2</b>	<b>5964</b>	<b>2457</b>	<b>163</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.

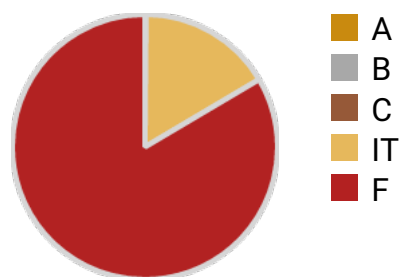
### Economic values

Total value of removed trees: 5964 €  
 Percentage of total stand value: 12.7 %  
 Stand value after harvest: 40823 €

### Economic value by tree species [€]

Tree species	Total	Per m <sup>3</sup>
common beech	5655	85
silver fir	309	64
sycamore maple	0	0
goat willow	0	0
<b>Total</b>	<b>5964</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	11.7	16.4
Fuelwood	59.4	83.5

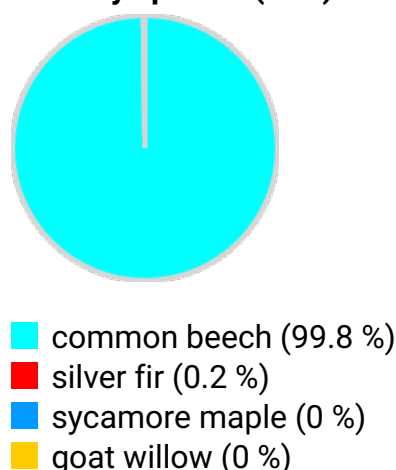
### Habitat values

Total habitat value of removed trees: 2457 pts.  
 Percentage of total stand value: 11.3 %  
 Stand value after harvest: 19284 pts.

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

Tree species	Total	Per m <sup>3</sup>	Microhabitats [N]
common beech	2453	37	162
silver fir	4	0.8	1
sycamore maple	0	0	0
goat willow	0	0	0
<b>Total</b>	<b>2457</b>	<b>34.5</b>	<b>163</b>

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

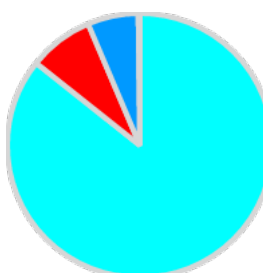




### Remaining stand

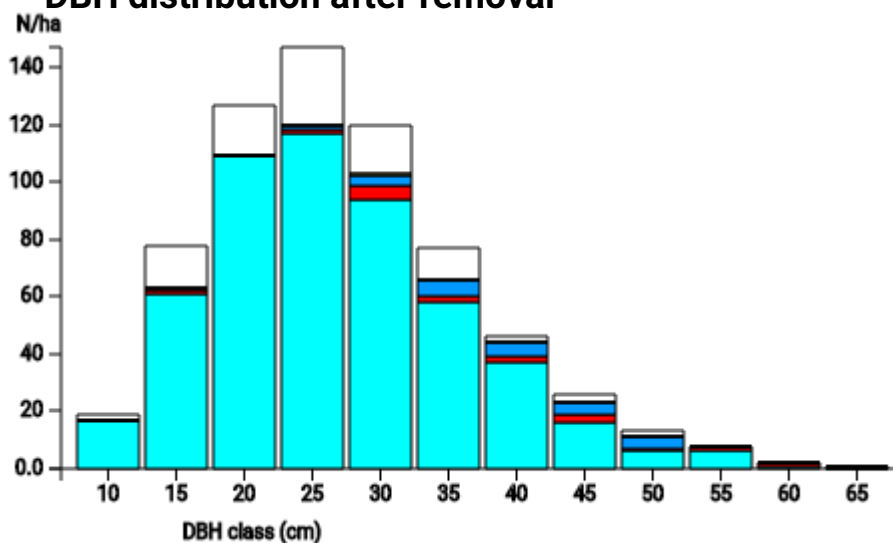
Volume: 487.1 m<sup>3</sup>  
 Basal area: 44.7 m<sup>2</sup>  
 Economic value: 40823 €  
 Habitat value: 19284 pts.

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



- common beech: 85.8 %
- silver fir: 7.9 %
- 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	522	38.1	417.6	35593	17355	1121
goat willow	1	0.1	0.8	70	24	3
silver fir	19	2.9	38.3	2751	241	24
sycamore maple	25	3.2	29.9	2409	1664	99
<b>Total</b>	<b>567</b>	<b>44.4</b>	<b>486.7</b>	<b>40823</b>	<b>19284</b>	<b>1247</b>

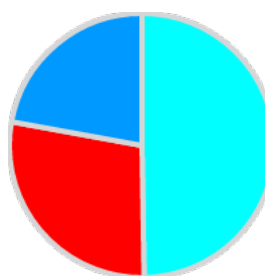
**Retention trees**Volume: 52.8 m<sup>3</sup>

Elite trees: 28

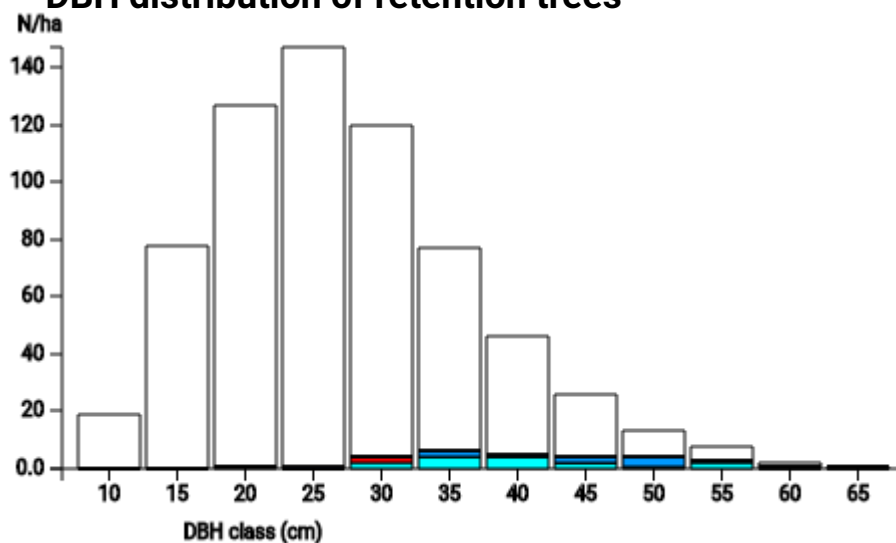
Habitat trees: 2

Economic value: 4185 €

Habitat value: 1642 pts.

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

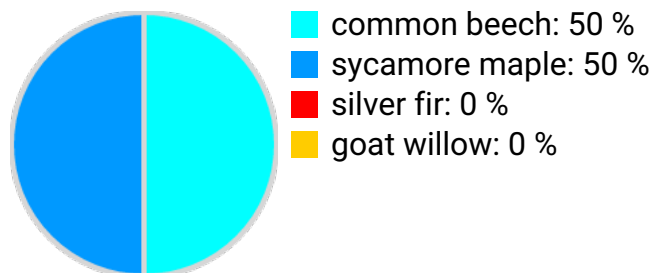
- common beech: 49.7 %
- silver fir: 28.1 %
- sycamore maple: 22.1 %
- goat willow: 0 %

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

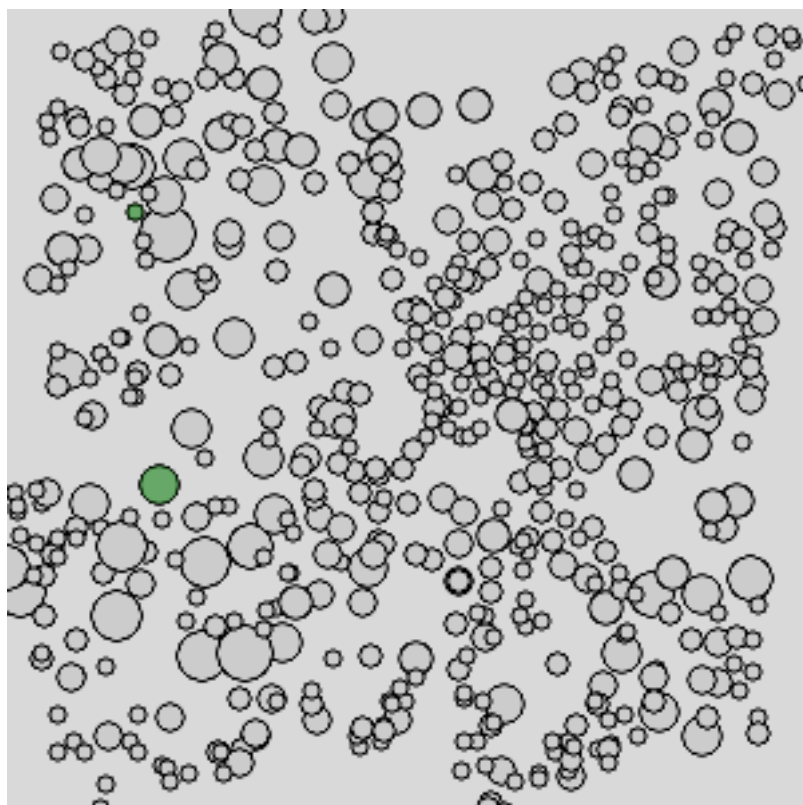
Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	16	2.3	26.3	2242	946	66
goat willow	0	0	0	0	0	0
silver fir	5	1.1	14.9	1072	44	8
sycamore maple	9	1.4	11.7	871	652	39
<b>Total</b>	<b>30</b>	<b>4.8</b>	<b>52.8</b>	<b>4185</b>	<b>1642</b>	<b>113</b>

Number of habitat trees	[N]	2
Habitat value	pts.	134
	[% of total]	0.6
Economic value	[€]	394
	[% of total]	0.8
Number of microhabitats	[N]	11
	[% of total]	0.8

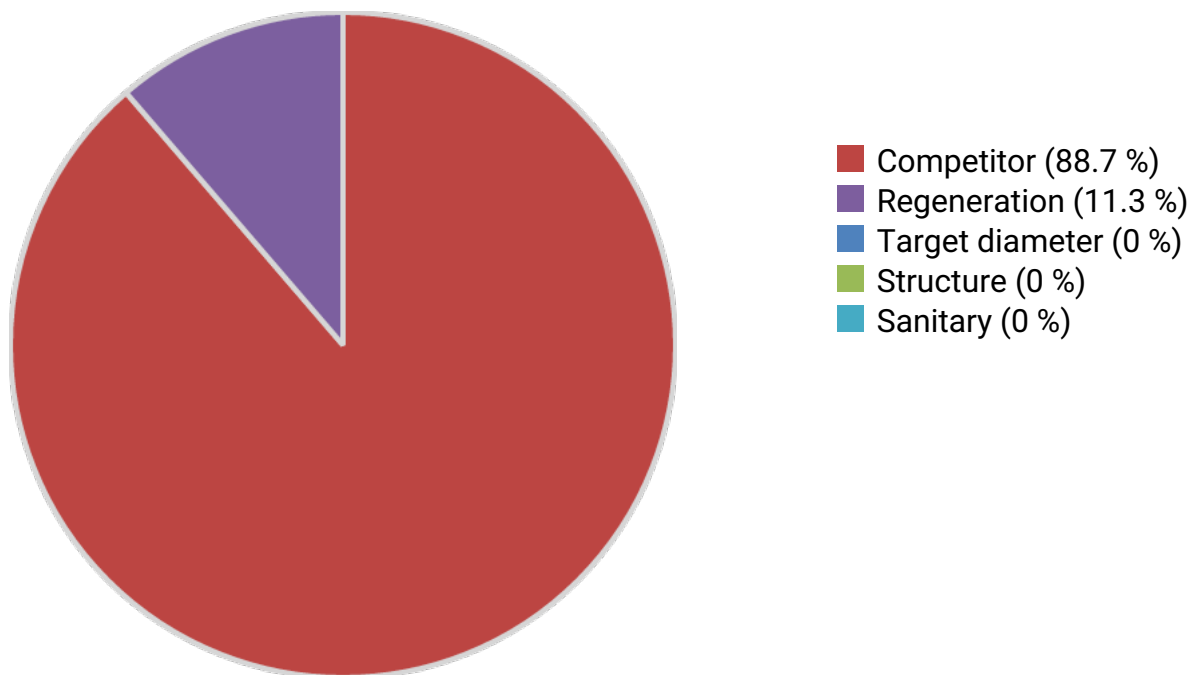
### Habitat tree distribution by species (N in %)



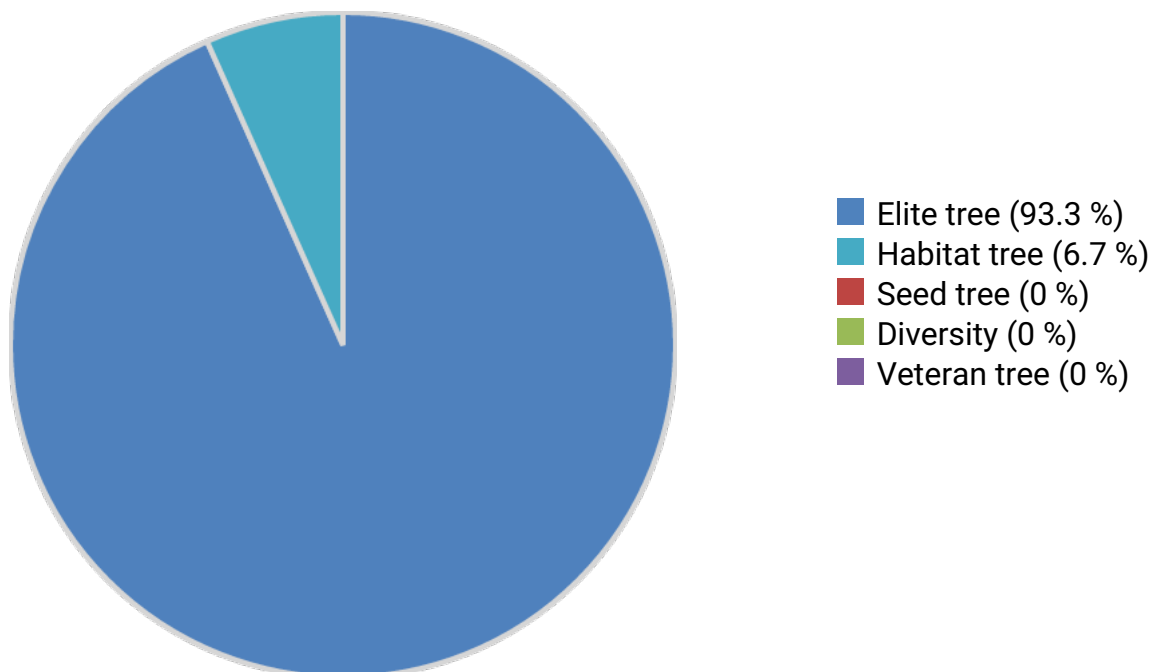
### Spatial distribution of habitat trees



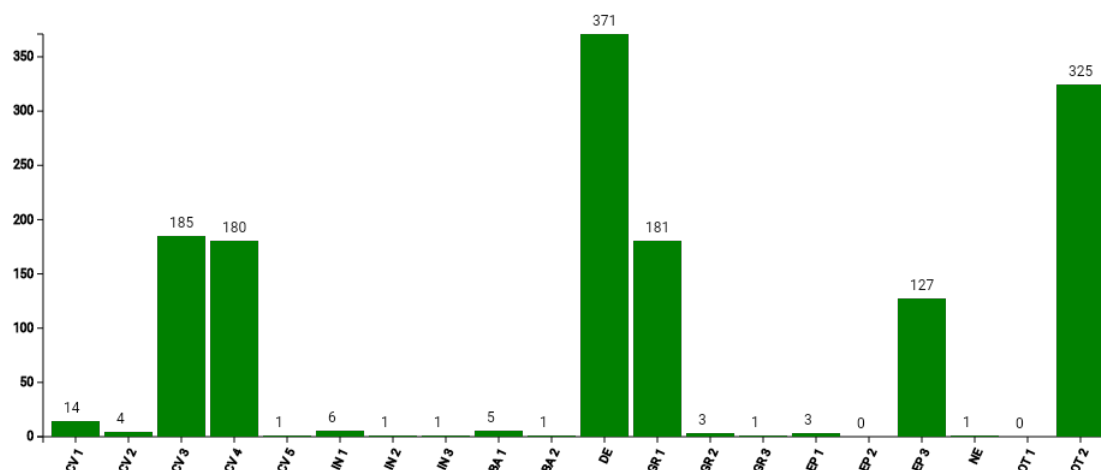
### Reasons for removal



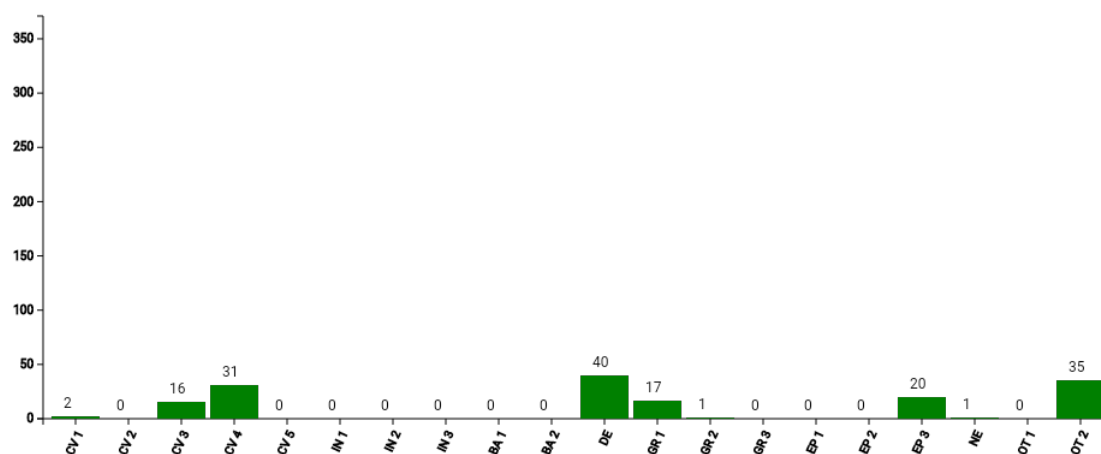
### Reasons for retention



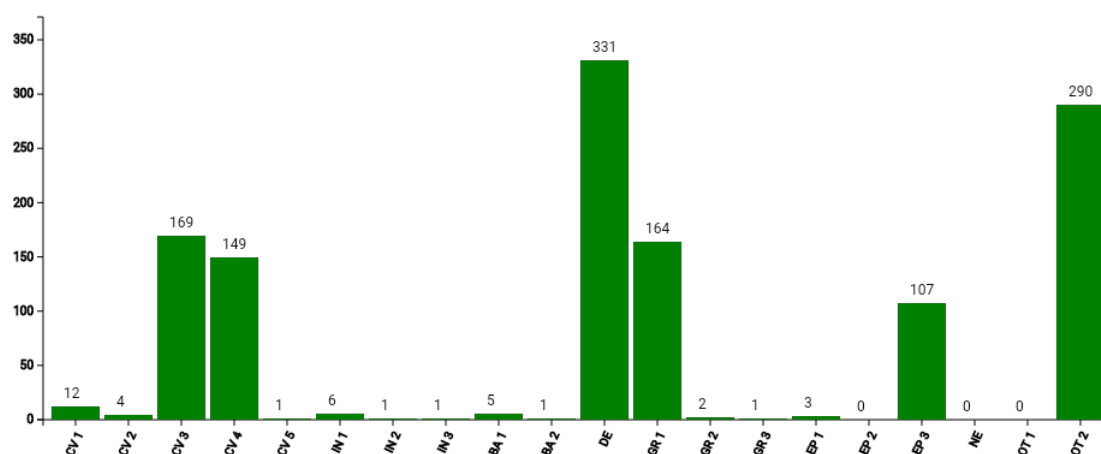
### Distribution of tree microhabitats by code (N total)



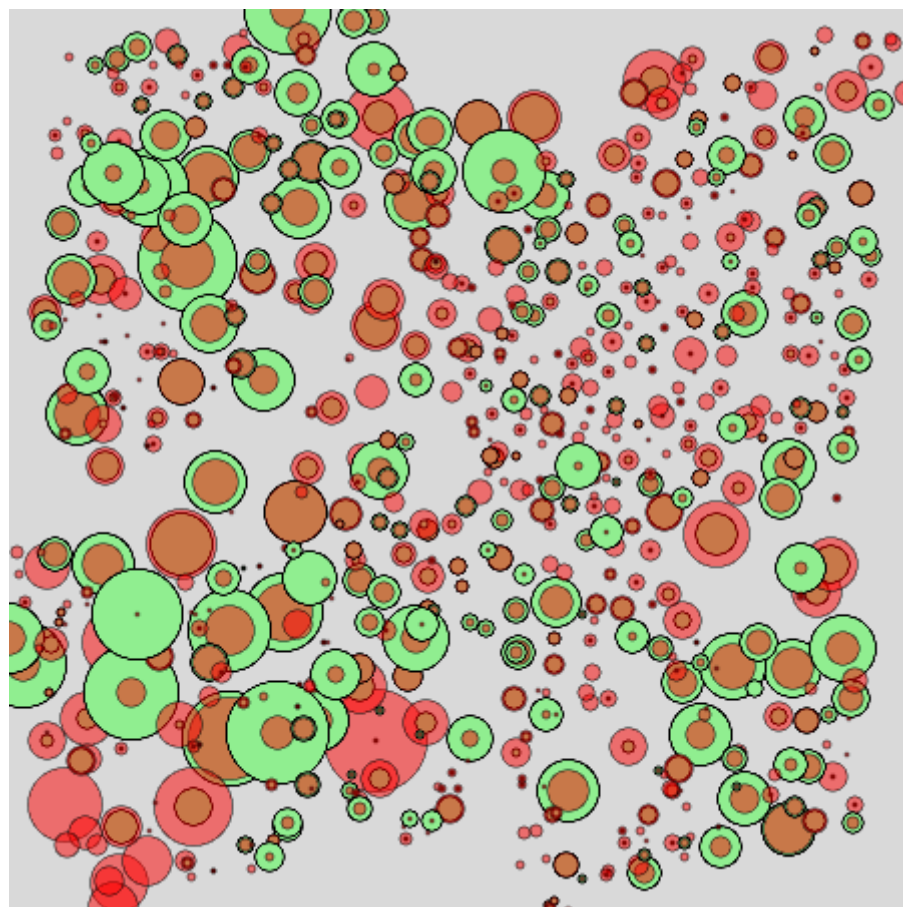
### Removed tree microhabitats by code (N removed)



### 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
silver fir (480) Abies alba	53.2	0.22	3.5	197	0	Competitor
common beech (389) Fagus sylvatica	50.2	0.2	2.5	210	66	Competitor
common beech (357) Fagus sylvatica	46.2	0.17	2.2	189	44	Competitor
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 (456) Fagus sylvatica	43.4	0.15	2.1	180	22	Competitor
common beech (309) Fagus sylvatica	42.1	0.14	1.5	129	12	Regeneration
common beech (435) Fagus sylvatica	39.5	0.12	1.6	131	84	Competitor
common beech (506) Fagus sylvatica	38.5	0.12	1.1	97	80	Competitor
common beech (224) Fagus sylvatica	38	0.11	1.2	108	42	Competitor
common beech (618) Fagus sylvatica	37.6	0.11	1.2	101	50	Competitor
common beech (257) Fagus sylvatica	37.2	0.11	1.1	97	39	Competitor
common beech (151) Fagus sylvatica	36.6	0.11	1.1	96	184	Competitor
common beech (241) Fagus sylvatica	36.5	0.11	1.1	98	78	Competitor
silver fir (499) Abies alba	36.1	0.1	1.3	112	4	Competitor
common beech (574) Fagus sylvatica	35	0.1	1.1	90	8	Competitor
common beech (526) Fagus sylvatica	35	0.1	1.1	94	50	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 (149) Fagus sylvatica	34.8	0.1	1	85	21	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (23) Fagus sylvatica	34.2	0.09	1.1	98	12	Competitor
common beech (58) Fagus sylvatica	33.6	0.09	1	89	0	Competitor
common beech (232) Fagus sylvatica	33.2	0.09	0.9	78	38	Competitor
common beech (40) Fagus sylvatica	32.8	0.08	1	83	36	Competitor
common beech (330) Fagus sylvatica	32.8	0.08	0.9	73	105	Competitor
common beech (179) Fagus sylvatica	32.1	0.08	0.9	73	6	Competitor
common beech (171) Fagus sylvatica	32	0.08	0.9	74	6	Competitor
common beech (57) Fagus sylvatica	32	0.08	0.9	73	6	Competitor
common beech (169) Fagus sylvatica	31.3	0.08	0.8	70	0	Competitor
common beech (265) Fagus sylvatica	31	0.08	0.8	65	42	Competitor
common beech (228) Fagus sylvatica	30.9	0.08	0.8	68	84	Competitor
common beech (217) Fagus sylvatica	30.7	0.07	0.9	73	67	Competitor
common beech (554) Fagus sylvatica	30.2	0.07	0.9	77	97	Competitor
common beech (619) Fagus sylvatica	30.1	0.07	0.6	54	6	Competitor
common beech (24) Fagus sylvatica	30	0.07	0.7	64	48	Competitor
common beech (340) Fagus sylvatica	29.6	0.07	0.5	46	68	Regeneration
common beech (415) Fagus sylvatica	29.3	0.07	0.6	54	0	Competitor
common beech (83) Fagus sylvatica	29.2	0.07	0.8	67	39	Competitor
common beech (16) Fagus sylvatica	28.9	0.07	0.6	54	47	Competitor
common beech (307) Fagus sylvatica	28.8	0.07	0.7	60	6	Regeneration



Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (250) Fagus sylvatica	28.7	0.07	0.6	52	9	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 (102) Fagus sylvatica	28.5	0.06	0.6	52	6	Competitor
common beech (616) Fagus sylvatica	28.4	0.06	0.6	46	36	Competitor
common beech (206) Fagus sylvatica	28.1	0.06	0.7	62	36	Competitor
common beech (617) Fagus sylvatica	28	0.06	0.7	58	57	Competitor
common beech (103) Fagus sylvatica	28	0.06	0.6	52	12	Competitor
common beech (651) Fagus sylvatica	28	0.06	0.6	52	32	Competitor
common beech (620) Fagus sylvatica	27.9	0.06	0.7	61	0	Competitor
common beech (539) Fagus sylvatica	27.2	0.06	0.7	59	12	Competitor
common beech (568) Fagus sylvatica	27	0.06	0.6	54	6	Competitor
common beech (446) Fagus sylvatica	26.9	0.06	0.6	53	0	Competitor
common beech (229) Fagus sylvatica	26.8	0.06	0.6	51	36	Competitor
common beech (112) Fagus sylvatica	26.8	0.06	0.6	48	6	Competitor
common beech (646) Fagus sylvatica	26.4	0.06	0.6	47	46	Competitor
common beech (267) Fagus sylvatica	26.3	0.05	0.5	42	12	Competitor
common beech (39) Fagus sylvatica	26.2	0.05	0.6	55	0	Competitor
common beech (183) Fagus sylvatica	25.5	0.05	0.6	50	20	Competitor
common beech (81) Fagus sylvatica	25.2	0.05	0.5	44	6	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (59) Fagus sylvatica	25	0.05	0.5	45	36	Competitor
common beech (263) Fagus sylvatica	25	0.05	0.5	39	6	Competitor
common beech (75) Fagus sylvatica	24.3	0.05	0.5	39	12	Competitor
common beech (538) Fagus sylvatica	24.2	0.05	0.5	46	0	Competitor
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	Competitor
common beech (129) Fagus sylvatica	23.5	0.04	0.5	40	0	Competitor
common beech (253) Fagus sylvatica	23.3	0.04	0.4	35	6	Competitor
common beech (398) Fagus sylvatica	23.3	0.04	0.5	39	12	Competitor
common beech (266) Fagus sylvatica	23	0.04	0.4	37	0	Competitor
common beech (153) Fagus sylvatica	22.8	0.04	0.4	32	8	Competitor
common beech (111) Fagus sylvatica	22.3	0.04	0.3	28	51	Competitor
common beech (448) Fagus sylvatica	22.2	0.04	0.4	34	28	Competitor
common beech (405) Fagus sylvatica	22.2	0.04	0.4	30	6	Competitor
common beech (130) Fagus sylvatica	21.3	0.04	0.3	30	42	Competitor
common beech (90) Fagus sylvatica	21	0.04	0.3	26	0	Competitor
common beech (239) Fagus sylvatica	20.5	0.03	0.3	29	0	Competitor
common beech (298) Fagus sylvatica	20.4	0.03	0.3	29	0	Regeneration
common beech (588) Fagus sylvatica	20.3	0.03	0.3	26	0	Competitor
common beech (339) Fagus sylvatica	20.2	0.03	0.3	25	0	Regeneration

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (322) Fagus sylvatica	19.5	0.03	0.3	21	0	Regeneration
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	Competitor
common beech (645) Fagus sylvatica	18.9	0.03	0.3	23	36	Competitor
common beech (146) Fagus sylvatica	18.5	0.03	0.2	19	24	Competitor
common beech (375) Fagus sylvatica	17.6	0.02	0.2	16	14	Competitor
common beech (295) Fagus sylvatica	16.7	0.02	0.2	18	0	Regeneration
common beech (583) Fagus sylvatica	16.6	0.02	0.2	18	14	Competitor
common beech (308) Fagus sylvatica	16.3	0.02	0.2	16	0	Regeneration
common beech (427) Fagus sylvatica	16	0.02	0.2	18	0	Competitor
common beech (432) Fagus sylvatica	15.9	0.02	0.1	12	0	Competitor
common beech (457) Fagus sylvatica	15.9	0.02	0.2	20	12	Competitor
common beech (433) Fagus sylvatica	15.6	0.02	0.2	18	0	Competitor
common beech (323) Fagus sylvatica	15	0.02	0.2	14	6	Regeneration
common beech (321) Fagus sylvatica	14.2	0.02	0.2	13	0	Regeneration
common beech (577) Fagus sylvatica	13.5	0.01	0.1	10	0	Competitor

**Retention trees**

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
silver fir (469) Abies alba	65.5	0.34	4.3	277	34	Elite tree
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	Elite tree
common beech (430) Fagus sylvatica	57.1	0.26	3.2	272	134	Habitat tree
common beech (218) Fagus sylvatica	55	0.24	3.2	271	76	Elite tree
common beech (150) Fagus sylvatica	53	0.22	2.4	207	104	Elite tree
sycamore maple (403) Acer pseudoplatanus	52.2	0.21	1.4	0	120	Elite tree
sycamore maple (575) Acer pseudoplatanus	52	0.21	1.4	120	88	Elite tree
sycamore maple (292) Acer pseudoplatanus	50	0.2	1.4	121	0	Habitat tree
common beech (540) Fagus sylvatica	49.8	0.2	2.3	198	118	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
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
common beech (230) Fagus sylvatica	43.1	0.15	1.6	139	30	Elite tree
common beech (170) Fagus sylvatica	41.8	0.14	1.5	129	81	Elite tree
common beech (71) Fagus sylvatica	40.5	0.13	1.5	128	6	Elite tree
common beech (541) Fagus sylvatica	40.2	0.13	1.4	117	118	Elite tree
common beech (643) Fagus sylvatica	38.7	0.12	1.1	96	55	Elite tree
sycamore maple (240) Acer pseudoplatanus	38.6	0.12	1.1	91	18	Elite tree

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (251) Fagus sylvatica	37	0.11	1.2	107	0	Elite tree
sycamore maple (576) Acer pseudoplatanus	36.8	0.11	1.4	120	52	Elite tree
common beech (264) Fagus sylvatica	36.3	0.1	1.1	92	0	Elite tree
common beech (505) Fagus sylvatica	36.2	0.1	1.1	92	6	Elite tree
common beech (567) Fagus sylvatica	34.3	0.09	1	89	18	Elite tree
silver fir (444) Abies alba	33.6	0.09	1.1	79	0	Elite tree
common beech (124) Fagus sylvatica	32.2	0.08	0.8	73	3	Elite tree
silver fir (341) Abies alba	30.5	0.07	0.9	79	0	Elite tree
sycamore maple (25) Acer pseudoplatanus	27.9	0.06	0.6	55	52	Elite tree
common beech (589) Fagus sylvatica	20.1	0.03	0.4	36	104	Elite tree