

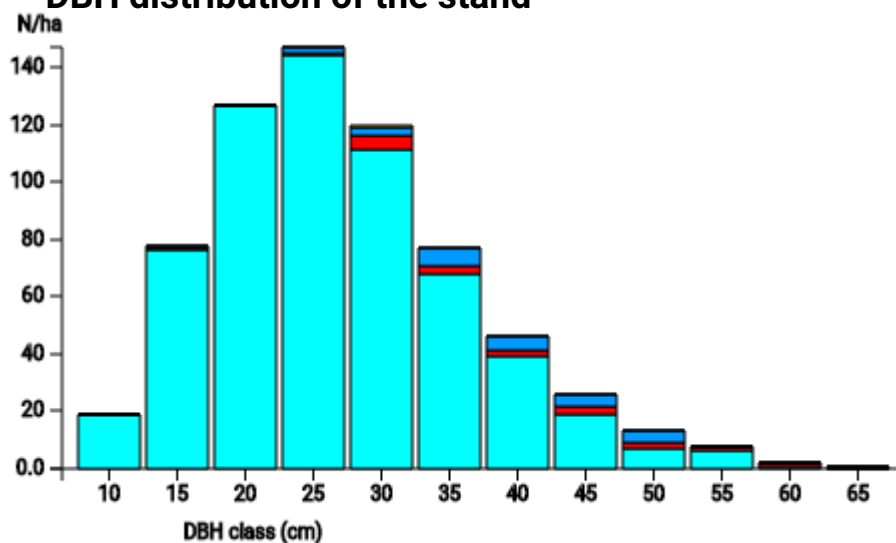
22/04/2021 Camaldoli_bio_gruppo c

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 %

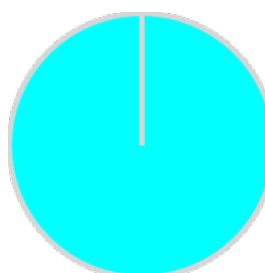
DBH distribution of the stand**Initial stand (details by tree species)**

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	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

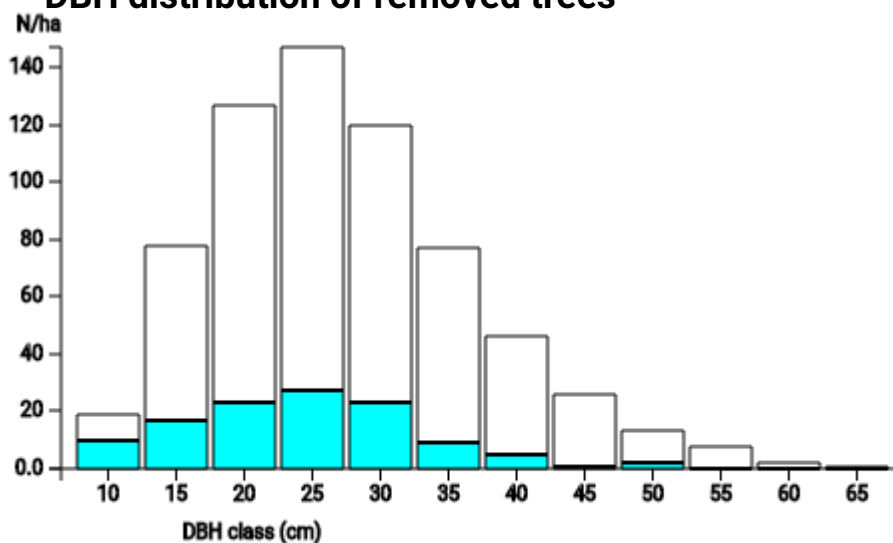
Volume: 77.8 m³
 Basal area: 7.2 m²
 Economic value: 6608 €
 Habitat value: 3237 pts.

Removed trees (N in %)



- common beech: 100 %
- silver fir: 0 %
- sycamore maple: 0 %
- goat willow: 0 %

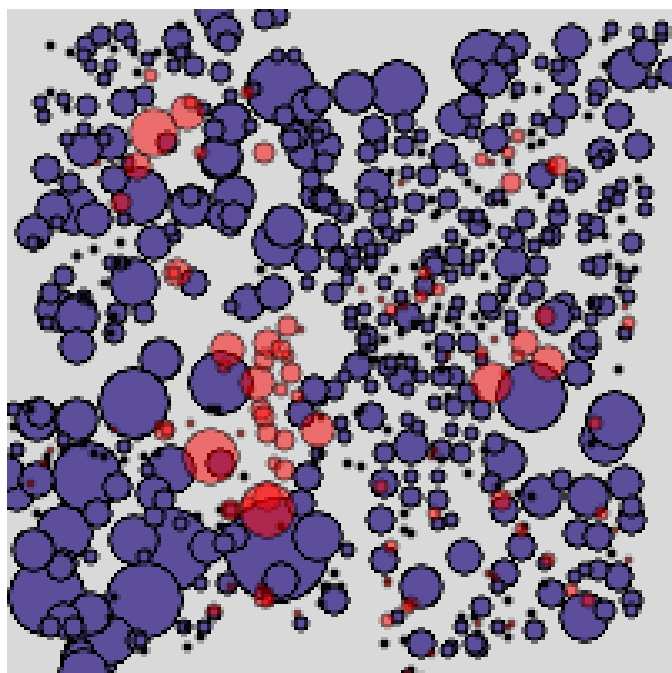
DBH distribution of removed trees



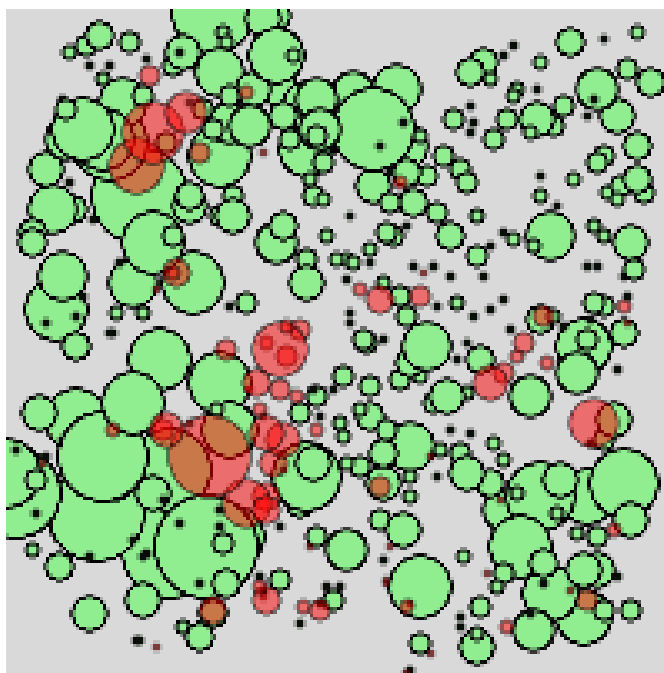
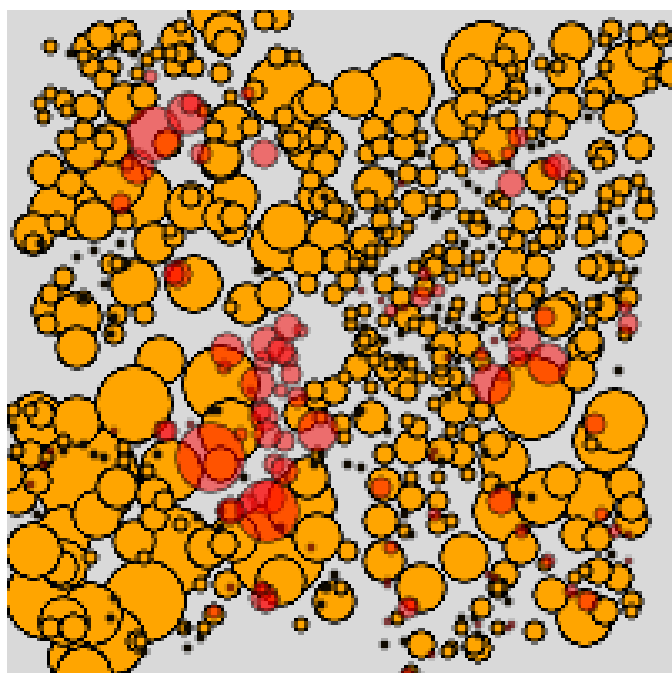
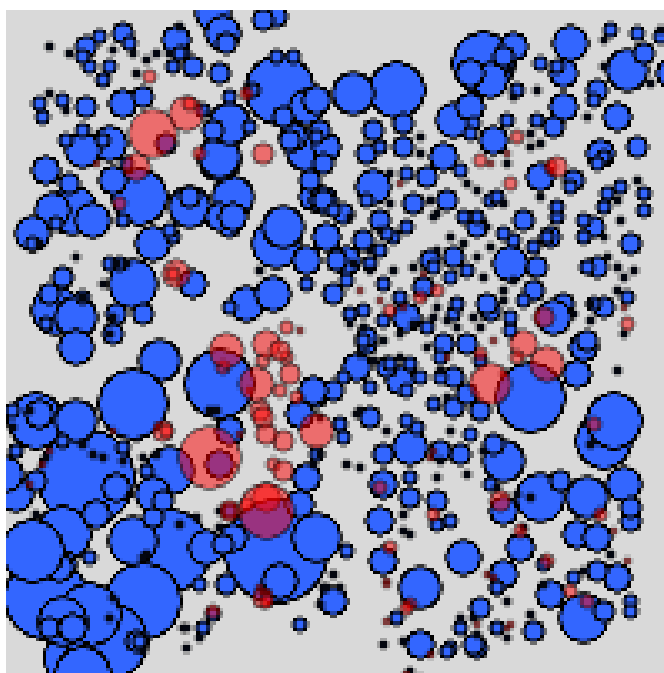
Removed trees (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	117	7.2	77.8	6608	3237	209
goat willow	0	0	0	0	0	0
silver fir	0	0	0	0	0	0
sycamore maple	0	0	0	0	0	0
Total	117	7.2	77.8	6608	3237	209

Economic value [EUR]



Habitat value

Basal area [m²]Volume [m³]**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.

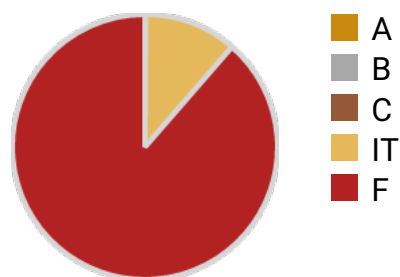
Economic values

Total value of removed trees: 6608 €
 Percentage of total stand value: 14.1 %
 Stand value after harvest: 40178 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	6608	85
silver fir	0	0
sycamore maple	0	0
goat willow	0	0
Total	6608	85

Wood quality distribution (m³ in %)



Quality class	m ³	%
A	0	0
B	0	0
C	0.1	0.1
Industrial Timber	8.8	11.3
Fuelwood	68.9	88.6

Habitat values

Total habitat value of removed trees: 3237 pts.
 Percentage of total stand value: 14.9 %
 Stand value after harvest: 18504 pts.

Habitat value by tree species [pts.]

Tree species	Total	Per m ³	Microhabitats [N]
common beech	3237	41.6	209
silver fir	0	0	0
sycamore maple	0	0	0
goat willow	0	0	0
Total	3237	41.6	209

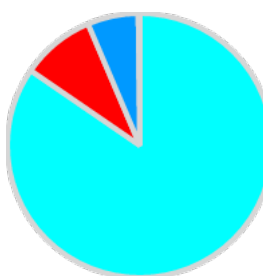
Habitat value (points) of removed trees by species (in %)



Remaining stand

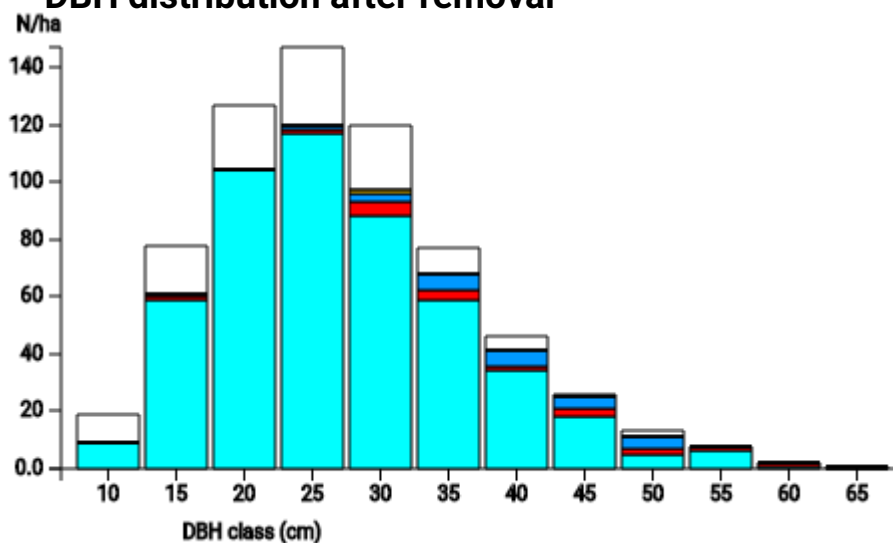
Volume: 480 m³
 Basal area: 43.6 m²
 Economic value: 40178 €
 Habitat value: 18504 pts.

Remaining trees by volume (m³ in %)



- common beech: 84.6 %
- silver fir: 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 ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	500	37	406.2	34639	16571	1074
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	547	43.6	480.1	40178	18504	1201

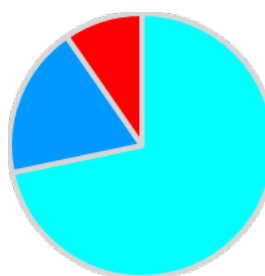
Retention treesVolume: 67.9 m³

Elite trees: 0

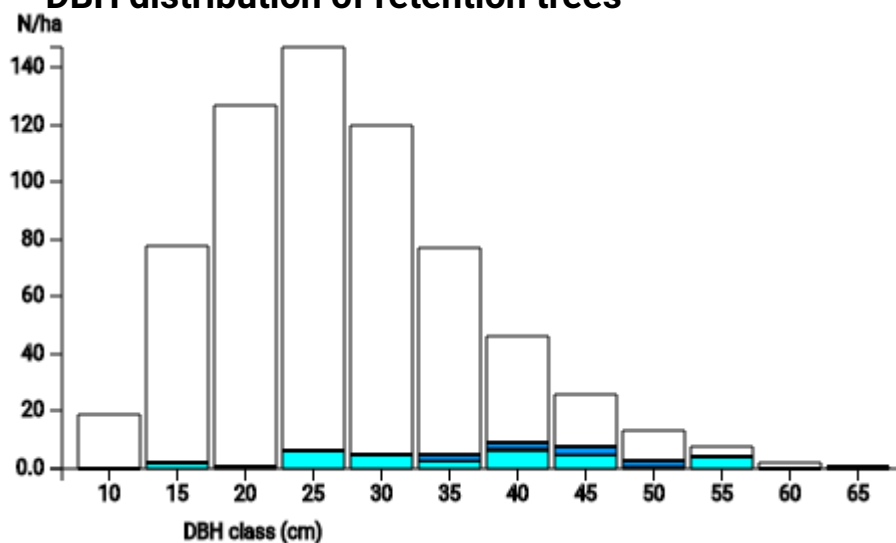
Habitat trees: 30

Economic value: 5604 €

Habitat value: 2947 pts.

Retention trees by volume (m³ in %)

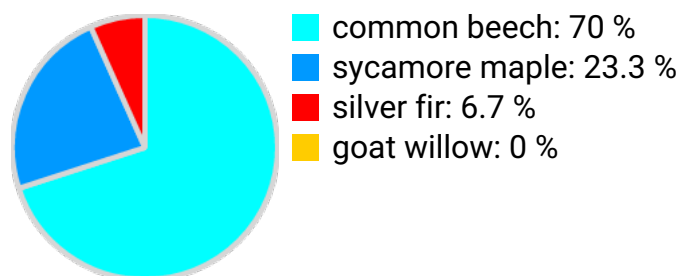
- common beech: 71.7 %
- sycamore maple: 18.7 %
- silver fir: 9.6 %
- goat willow: 0 %

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

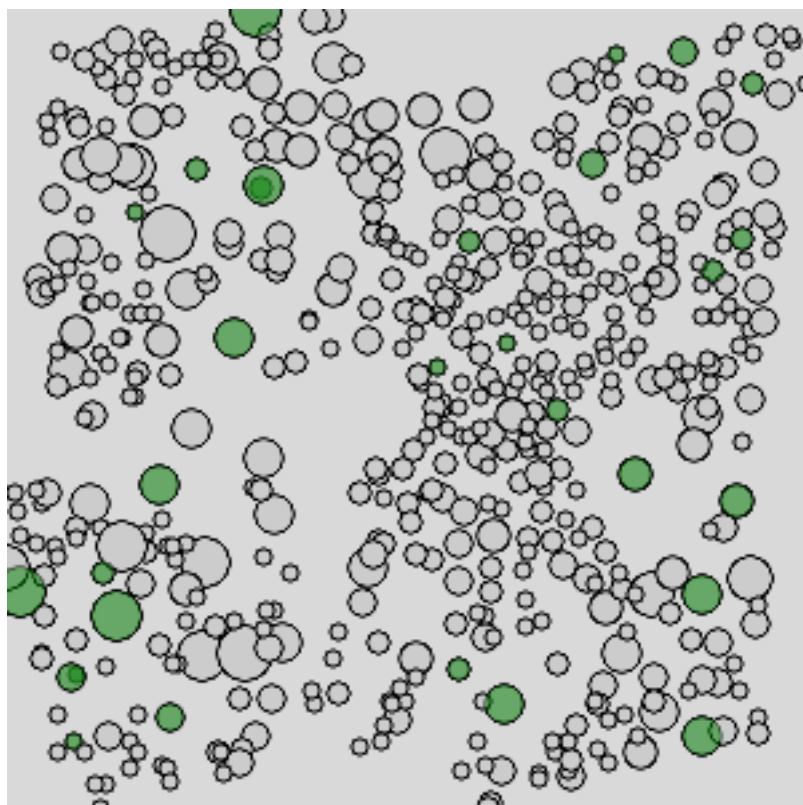
Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	33	4.2	48.6	4126	2283	151
goat willow	0	0	0	0	0	0
silver fir	2	0.5	6.5	404	34	6
sycamore maple	9	1.4	12.7	1074	630	39
Total	44	6.1	67.8	5604	2947	196

Number of habitat trees	[N]	30
Habitat value	pts.	2161
	[% of total]	9.9
Economic value	[€]	4280
	[% of total]	9.1
Number of microhabitats	[N]	142
	[% of total]	10.1

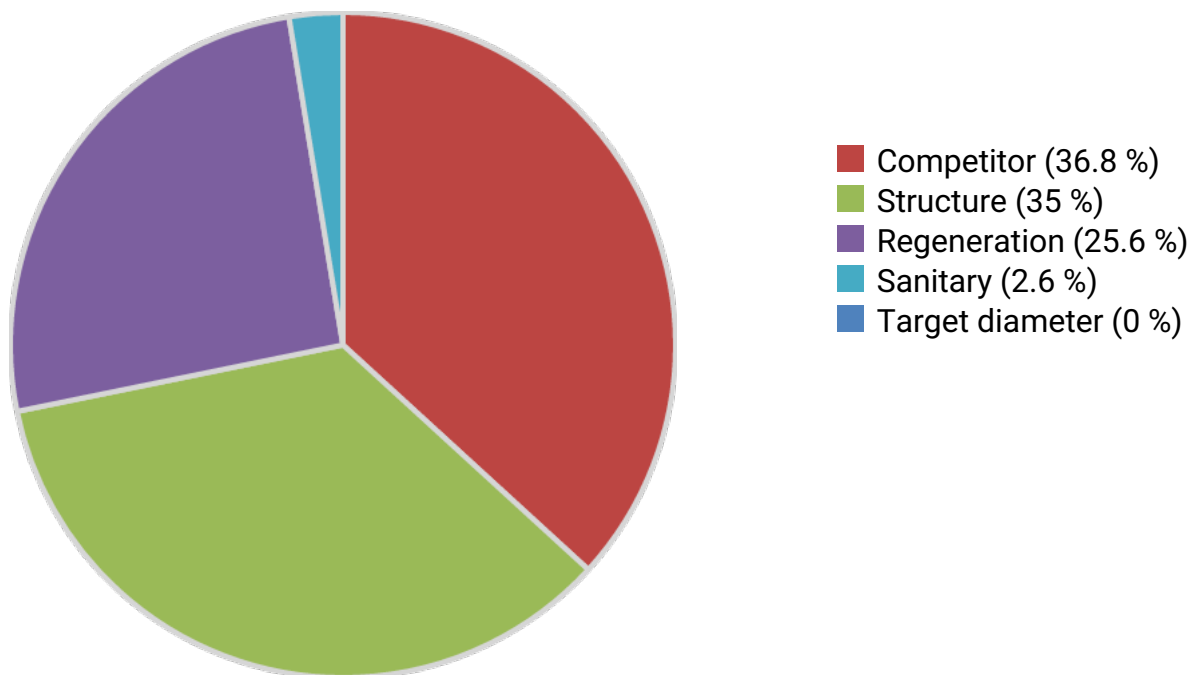
Habitat tree distribution by species (N in %)



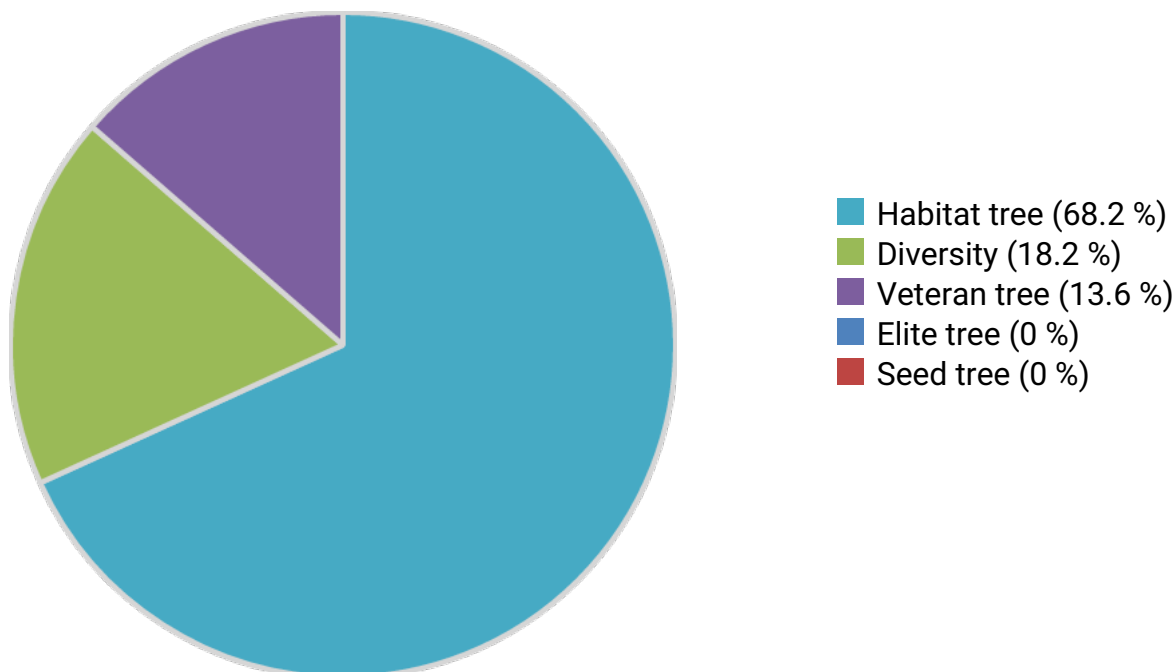
Spatial distribution of habitat trees



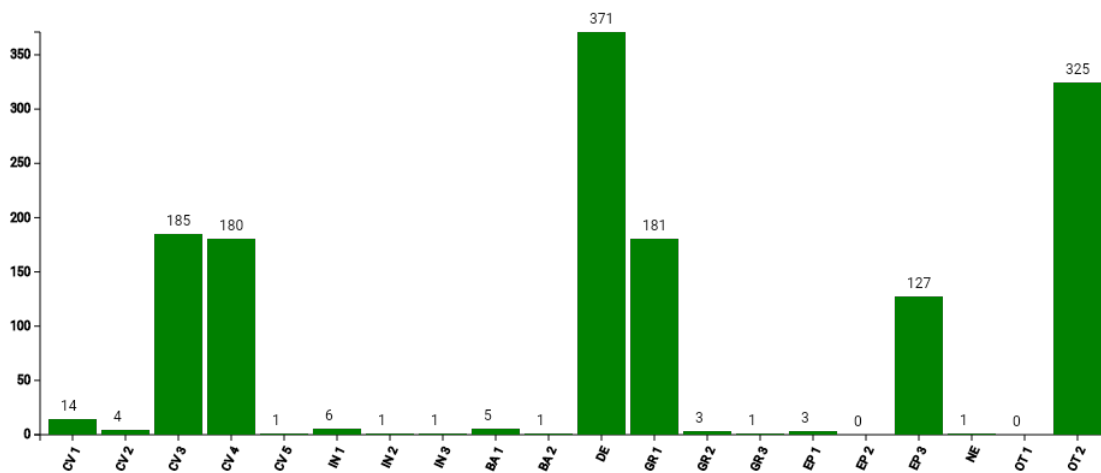
Reasons for removal



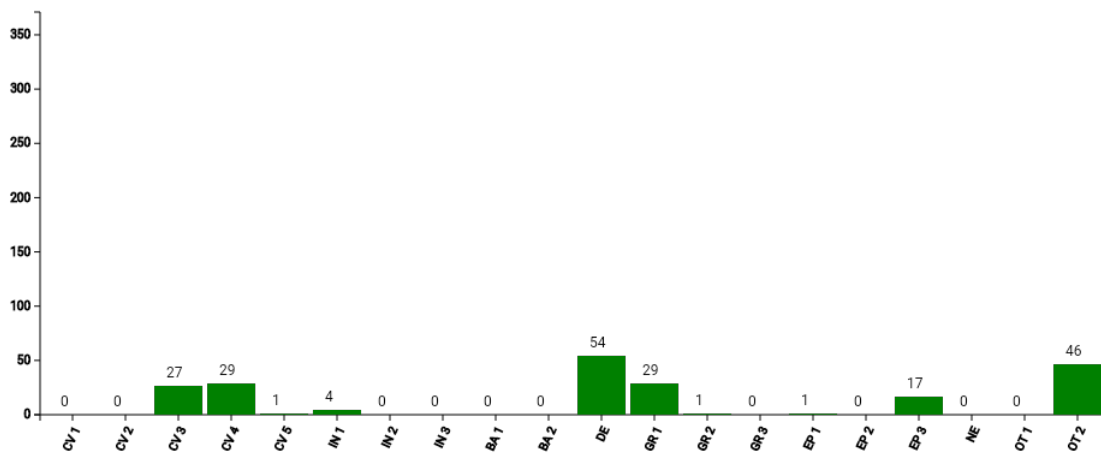
Reasons for retention



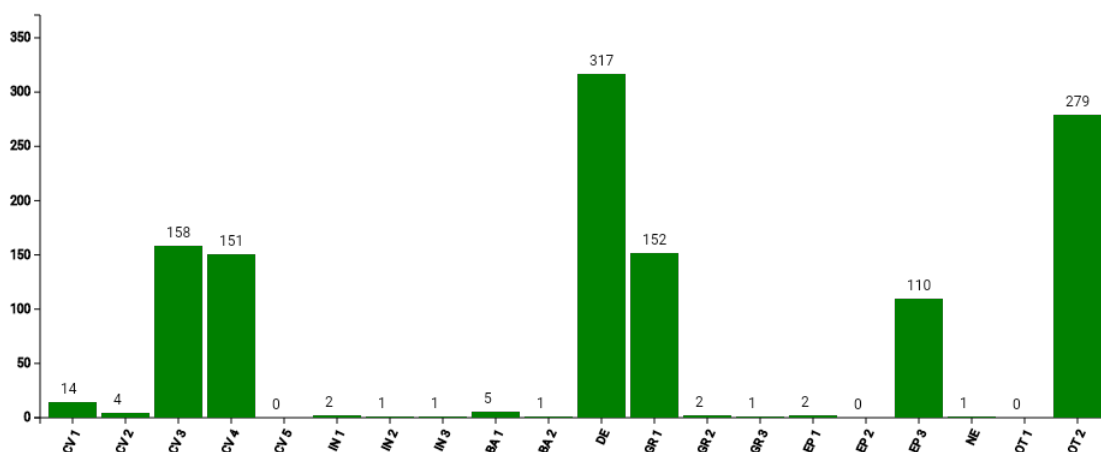
Distribution of tree microhabitats by code (N total)



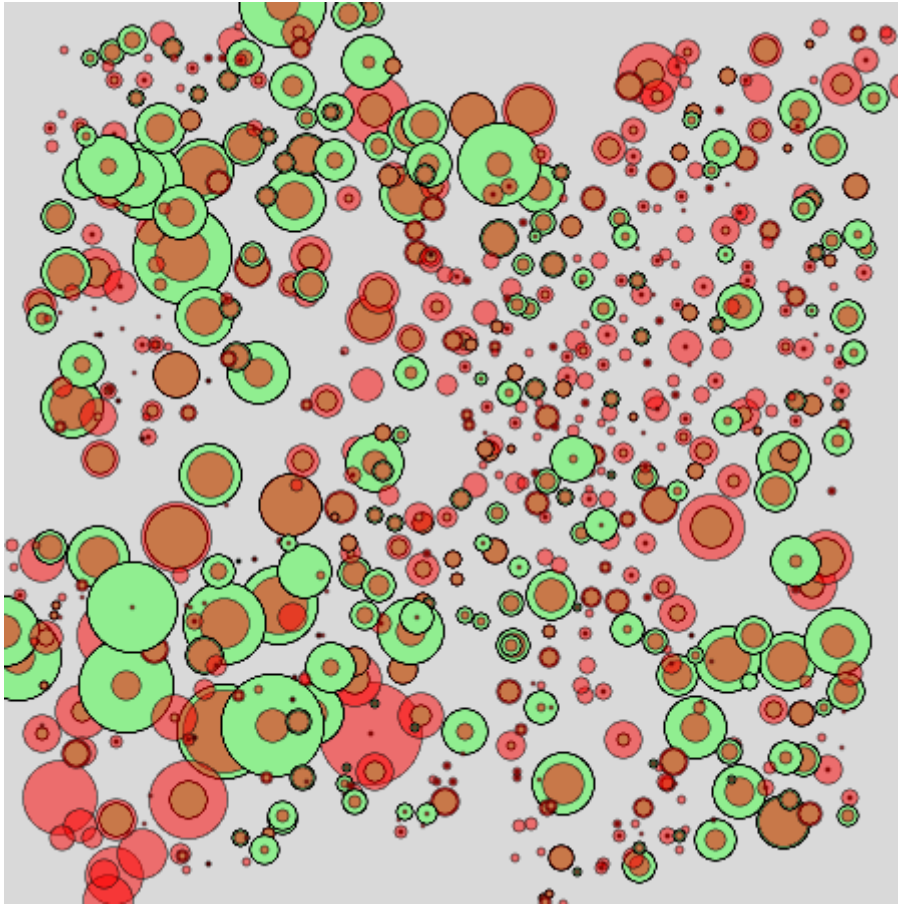
Removed tree microhabitats by code (N removed)



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 ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (411) Fagus sylvatica	54.5	0.23	2.8	232	180	Regeneration
common beech (389) Fagus sylvatica	50.2	0.2	2.5	210	66	Regeneration
common beech (271) Fagus sylvatica	48.2	0.18	2.2	190	142	Competitor
common beech (350) Fagus sylvatica	43.8	0.15	1.6	135	36	Regeneration
common beech (536) Fagus sylvatica	43	0.15	1.7	139	32	Structure
common beech (566) Fagus sylvatica	42.6	0.14	1.8	154	78	Structure
common beech (255) Fagus sylvatica	42.6	0.14	1.6	135	90	Structure
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	Regeneration
common beech (385) Fagus sylvatica	39.7	0.12	1.5	126	45	Structure
common beech (384) Fagus sylvatica	39.5	0.12	1.3	113	28	Regeneration
common beech (548) Fagus sylvatica	39	0.12	1.2	107	39	Competitor
common beech (280) Fagus sylvatica	38.5	0.12	1.3	113	120	Competitor
common beech (378) Fagus sylvatica	36.8	0.11	1.1	94	75	Regeneration
common beech (364) Fagus sylvatica	35.5	0.1	1.1	93	128	Regeneration
common beech (574) Fagus sylvatica	35	0.1	1.1	90	8	Structure
common beech (275) Fagus sylvatica	35	0.1	1.2	101	62	Competitor
common beech (379) Fagus sylvatica	34.8	0.1	0.9	79	20	Regeneration
common beech (344) Fagus sylvatica	34.6	0.09	0.8	69	38	Structure
common beech (414) Fagus sylvatica	34.2	0.09	0.8	73	0	Regeneration
common beech (79)	33.7	0.09	0.8	71	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (51) Fagus sylvatica	33.6	0.09	0.9	81	0	Competitor
common beech (226) Fagus sylvatica	33.6	0.09	1.1	93	18	Structure
common beech (396) Fagus sylvatica	33.5	0.09	0.9	77	12	Regeneration
common beech (367) Fagus sylvatica	33.3	0.09	1	85	9	Regeneration
common beech (363) Fagus sylvatica	33	0.09	1	85	3	Structure
common beech (535) Fagus sylvatica	33	0.09	0.9	80	44	Competitor
common beech (366) Fagus sylvatica	32	0.08	0.9	77	78	Regeneration
common beech (639) Fagus sylvatica	31.6	0.08	0.6	54	44	Structure
common beech (346) Fagus sylvatica	31.5	0.08	0.7	60	48	Regeneration
common beech (256) Fagus sylvatica	31.2	0.08	0.7	63	44	Competitor
common beech (383) Fagus sylvatica	30.8	0.08	0.8	69	6	Structure
common beech (380) Fagus sylvatica	30.8	0.08	0.8	71	36	Regeneration
common beech (429) Fagus sylvatica	30.7	0.07	0.9	73	40	Structure
common beech (50) Fagus sylvatica	30.5	0.07	0.8	66	6	Competitor
common beech (140) Fagus sylvatica	30.5	0.07	0.8	68	39	Competitor
common beech (527) Fagus sylvatica	30.2	0.07	0.7	60	47	Competitor
common beech (428) Fagus sylvatica	30.2	0.07	0.8	65	76	Structure
common beech (82) Fagus sylvatica	30.2	0.07	0.8	65	0	Competitor
common beech (400) Fagus sylvatica	30.1	0.07	0.7	59	108	Sanitary
common beech (377) Fagus sylvatica	29.6	0.07	0.7	61	68	Regeneration

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (547) Fagus sylvatica	29.6	0.07	0.8	66	36	Structure
common beech (247) Fagus sylvatica	29.3	0.07	0.7	63	12	Structure
common beech (293) Fagus sylvatica	29	0.07	0.8	69	0	Structure
common beech (395) Fagus sylvatica	28.9	0.07	0.7	57	60	Regeneration
common beech (362) Fagus sylvatica	28.7	0.07	0.7	56	36	Regeneration
common beech (635) Fagus sylvatica	28.6	0.06	0.8	67	26	Structure
common beech (502) Fagus sylvatica	28.5	0.06	0.6	53	20	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 (520) Fagus sylvatica	28.5	0.06	0.6	46	110	Competitor
common beech (606) Fagus sylvatica	28.1	0.06	0.7	60	0	Competitor
common beech (269) Fagus sylvatica	28	0.06	0.6	52	39	Competitor
common beech (190) Fagus sylvatica	27.4	0.06	0.6	54	0	Competitor
common beech (539) Fagus sylvatica	27.2	0.06	0.7	59	12	Structure
common beech (568) Fagus sylvatica	27	0.06	0.6	54	6	Competitor
common beech (135) Fagus sylvatica	27	0.06	0.7	58	0	Competitor
common beech (544) Fagus sylvatica	26.9	0.06	0.7	61	0	Structure
common beech (229) Fagus sylvatica	26.8	0.06	0.6	51	36	Structure
common beech (386) Fagus sylvatica	26.2	0.05	0.6	48	0	Regeneration
common beech (365) Fagus sylvatica	26	0.05	0.5	45	39	Regeneration
common beech (560)	25.7	0.05	0.6	47	0	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (422) Fagus sylvatica	25.5	0.05	0.5	44	65	Regeneration
common beech (664) Fagus sylvatica	25.4	0.05	0.5	41	15	Structure
common beech (551) Fagus sylvatica	25.3	0.05	0.5	41	45	Structure
common beech (81) Fagus sylvatica	25.2	0.05	0.5	44	6	Competitor
common beech (501) Fagus sylvatica	25.2	0.05	0.5	39	32	Competitor
common beech (634) Fagus sylvatica	24.8	0.05	0.6	50	14	Structure
common beech (142) Fagus sylvatica	24.5	0.05	0.5	43	8	Competitor
common beech (387) Fagus sylvatica	24	0.05	0.4	37	0	Regeneration
common beech (637) Fagus sylvatica	23.7	0.04	0.5	46	15	Structure
common beech (523) Fagus sylvatica	23.6	0.04	0.6	50	0	Competitor
common beech (345) Fagus sylvatica	23.5	0.04	0.3	29	40	Regeneration
common beech (513) Fagus sylvatica	23.4	0.04	0.5	38	36	Structure
common beech (397) Fagus sylvatica	23.3	0.04	0.4	32	36	Regeneration
common beech (662) Fagus sylvatica	22.7	0.04	0.5	38	0	Structure
common beech (658) Fagus sylvatica	22.7	0.04	0.5	43	0	Competitor
common beech (487) Fagus sylvatica	22.6	0.04	0.5	38	0	Competitor
common beech (550) Fagus sylvatica	22.6	0.04	0.4	36	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	Structure
common beech (185) Fagus sylvatica	21.8	0.04	0.4	32	56	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (159) Fagus sylvatica	21.2	0.04	0.3	28	3	Competitor
common beech (381) Fagus sylvatica	21.2	0.04	0.3	26	20	Regeneration
common beech (474) Fagus sylvatica	21	0.04	0.4	31	18	Structure
common beech (90) Fagus sylvatica	21	0.04	0.3	26	0	Competitor
common beech (491) Fagus sylvatica	20.3	0.03	0.3	26	0	Competitor
common beech (656) Fagus sylvatica	20.3	0.03	0.3	29	8	Structure
common beech (588) Fagus sylvatica	20.3	0.03	0.3	26	0	Competitor
common beech (655) Fagus sylvatica	20.2	0.03	0.3	29	8	Structure
common beech (194) Fagus sylvatica	19.6	0.03	0.3	23	24	Competitor
common beech (610) Fagus sylvatica	19.2	0.03	0.2	20	14	Competitor
common beech (582) Fagus sylvatica	19	0.03	0.3	26	0	Structure
common beech (557) Fagus sylvatica	19	0.03	0.3	26	3	Competitor
common beech (611) Fagus sylvatica	18.7	0.03	0.3	24	0	Structure
common beech (146) Fagus sylvatica	18.5	0.03	0.2	19	24	Competitor
common beech (508) Fagus sylvatica	18.2	0.03	0.3	23	0	Structure
common beech (556) Fagus sylvatica	17.9	0.03	0.5	40	26	Structure
common beech (368) Fagus sylvatica	17.8	0.03	0.2	14	23	Sanitary
common beech (410) Fagus sylvatica	17	0.02	0.2	18	12	Structure
common beech (507) Fagus sylvatica	16.7	0.02	0.1	11	0	Competitor
common beech (583) Fagus sylvatica	16.6	0.02	0.2	18	14	Structure
common beech (632)	16.4	0.02	0.2	21	15	Structure

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (420) Fagus sylvatica	16.3	0.02	0.2	15	0	Regeneration
common beech (599) Fagus sylvatica	16	0.02	0.2	21	0	Structure
common beech (393) Fagus sylvatica	15.8	0.02	0.2	16	0	Regeneration
common beech (388) Fagus sylvatica	15.3	0.02	0.2	14	0	Sanitary
common beech (461) Fagus sylvatica	14.7	0.02	0.1	10	12	Competitor
common beech (392) Fagus sylvatica	14.5	0.02	0.2	13	36	Regeneration
common beech (408) Fagus sylvatica	14.5	0.02	0.2	14	0	Structure
common beech (277) Fagus sylvatica	14.5	0.02	0.1	13	12	Competitor
common beech (401) Fagus sylvatica	14.4	0.02	0.1	10	6	Regeneration
common beech (577) Fagus sylvatica	13.5	0.01	0.1	10	0	Structure
common beech (372) [REPLACE_DEAD]Fagus sylvatica	13.4	0.01	0.1	8	46	Regeneration
common beech (493) Fagus sylvatica	13.1	0.01	0.1	8	0	Competitor
common beech (447) Fagus sylvatica	12	0.01	0.1	6	0	Structure
common beech (409) Fagus sylvatica	11.2	0.01	0.1	6	6	Structure

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
silver fir (469) Abies alba	65.5	0.34	4.3	277	34	Habitat tree
common beech (546) Fagus sylvatica	58	0.26	3.1	264	96	Habitat tree
common beech (459) Fagus sylvatica	57.7	0.26	3.6	306	82	Habitat tree
common beech (430) Fagus sylvatica	57.1	0.26	3.2	272	134	Habitat tree
common beech (406) Fagus sylvatica	55.7	0.24	3	251	135	Veteran tree
sycamore maple (575) Acer pseudoplatanus	52	0.21	1.4	120	88	Veteran tree
common beech (515) Fagus sylvatica	50.1	0.2	2.5	215	84	Habitat 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	Habitat tree
common beech (522) Fagus sylvatica	48.2	0.18	1.9	159	129	Habitat tree
sycamore maple (260) Acer pseudoplatanus	47.6	0.18	1.4	122	134	Habitat tree
common beech (21) Fagus sylvatica	47.5	0.18	1.9	159	49	Habitat tree
common beech (629) Fagus sylvatica	46.8	0.17	2	166	136	Habitat tree
common beech (407) Fagus sylvatica	46.7	0.17	2.1	173	136	Veteran tree
sycamore maple (477) Acer pseudoplatanus	46.2	0.17	1.4	120	16	Habitat tree
sycamore maple (468) Acer pseudoplatanus	46.1	0.17	1.4	120	208	Habitat tree
common beech (231) Fagus sylvatica	44.5	0.16	1.6	138	192	Habitat tree
sycamore maple (89) Acer pseudoplatanus	44	0.15	1.4	122	52	Habitat tree
silver fir (483) Abies alba	44	0.15	2.2	127	0	Habitat tree
common beech (243) Fagus sylvatica	43.7	0.15	1.9	159	26	Habitat tree
common beech (496)	43.1	0.15	1.7	139	195	Habitat tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (230) Fagus sylvatica	43.1	0.15	1.6	139	30	Diversity
common beech (244) Fagus sylvatica	43	0.15	1.8	154	142	Habitat tree
sycamore maple (654) Acer pseudoplatanus	41.6	0.14	1.3	110	22	Habitat tree
common beech (46) Fagus sylvatica	41.4	0.14	1.5	126	54	Habitat tree
common beech (532) Fagus sylvatica	39.6	0.12	1.3	112	116	Diversity
common beech (531) Fagus sylvatica	37.7	0.11	1.4	114	94	Veteran tree
sycamore maple (478) Acer pseudoplatanus	37.3	0.11	1.4	120	58	Habitat tree
common beech (86) Fagus sylvatica	37	0.11	1.2	101	14	Habitat tree
sycamore maple (576) Acer pseudoplatanus	36.8	0.11	1.4	120	52	Diversity
common beech (272) Fagus sylvatica	34.7	0.1	1.1	92	42	Habitat tree
common beech (567) Fagus sylvatica	34.3	0.09	1	89	18	Habitat tree
common beech (28) Fagus sylvatica	34.1	0.09	1	83	36	Habitat tree
common beech (519) Fagus sylvatica	33.6	0.09	0.9	77	42	Diversity
common beech (141) Fagus sylvatica	32.9	0.09	1	82	6	Habitat tree
common beech (103) Fagus sylvatica	28	0.06	0.6	52	12	Diversity
common beech (195) Fagus sylvatica	26.6	0.06	0.6	52	6	Habitat tree
common beech (267) Fagus sylvatica	26.3	0.05	0.5	42	12	Diversity
common beech (15) Fagus sylvatica	25.3	0.05	0.5	43	30	Habitat tree
common beech (154) Fagus sylvatica	25.2	0.05	0.5	42	48	Habitat tree
common beech (521) Fagus sylvatica	25.1	0.05	0.5	40	12	Diversity

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
common beech (458) Fagus sylvatica	23.8	0.04	0.5	43	12	Veteran tree
common beech (61) Fagus sylvatica	19.3	0.03	0.3	24	33	Diversity
common beech (457) Fagus sylvatica	15.9	0.02	0.2	20	12	Veteran tree