

26/05/2021 gruppo C 26mag

Site conditions

Altitude: 870 m.a.s.l.

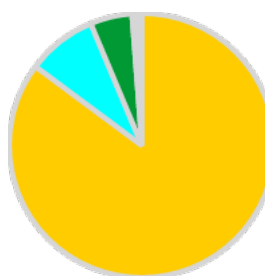
Geology / Bedrock: Alluvial and mixed beds

Soil type: Cambisol – Leptosol with Luvisol of the Central Appenino Mountains.

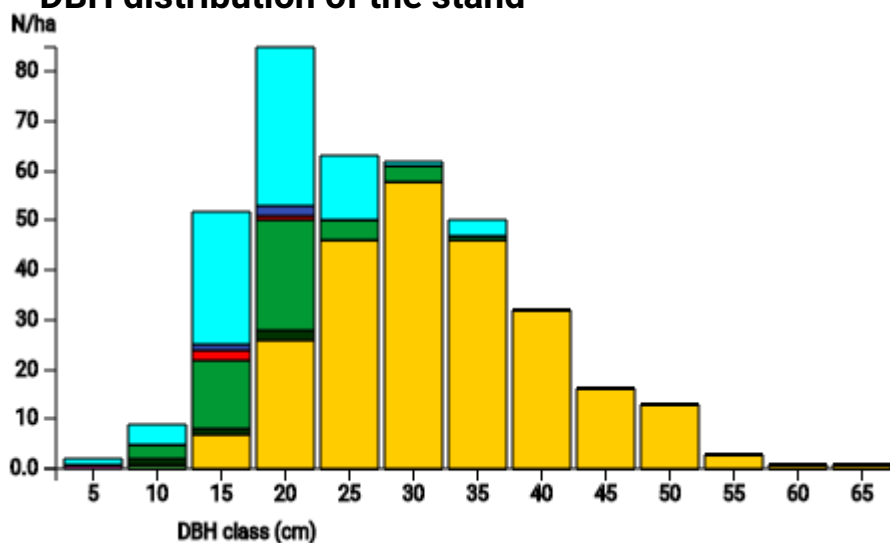
Natural forest community: Aceri obtusati-Quercus cerridis sigmetum

Mean annual temperature: 12.4 C;

Mean annual precipitation: 1154 mm; Ownership: State-owned Agency "Sala"; Establishment: 2020

Tree species distribution by volume (in %)

- Turkey oak: 85.1 %
- European hop-hornbeam: 8.5 %
- Italian maple: 5.1 %
- manna ash: 0.6 %
- field maple: 0.3 %
- hornbeam: 0.3 %
- common beech: 0 %
- downy oak: 0 %

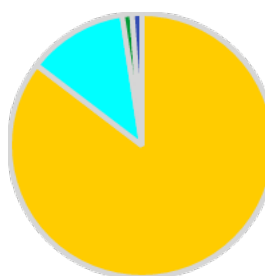
DBH distribution of the stand**Initial stand (details by tree species)**

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	81	3	34.6	2647	1669	101
Italian maple	47	1.8	20.8	1588	917	65
Turkey oak	249	24.7	346.4	26500	7807	401
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	3	0.1	1.3	101	24	1
manna ash	3	0.1	2.3	174	38	4
Total	389	29.9	407.1	31140	10570	578

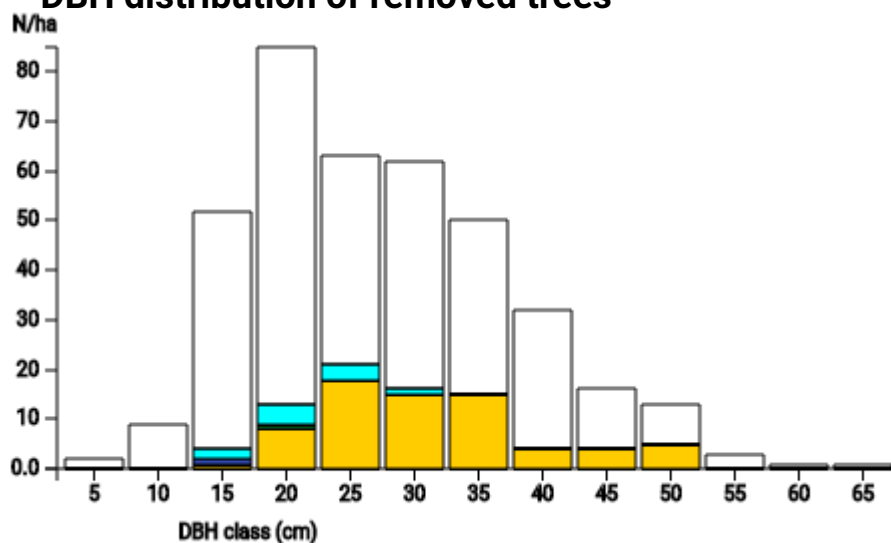
Removed treesVolume: 96.5 m³Basal area: 7 m²

Economic value: 7379 €

Habitat value: 1954 pts.

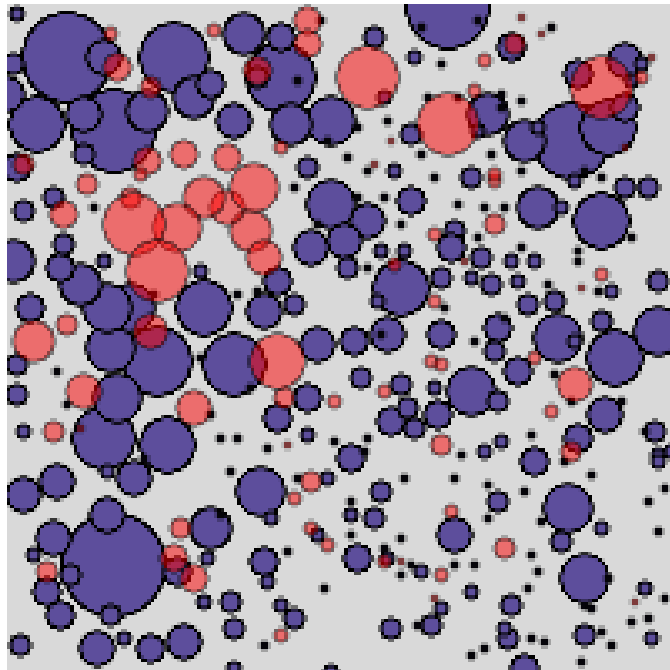
Removed trees (N in %)

- Turkey oak: 85.4 %
- European hop-hornbeam: 12.2 %
- Italian maple: 1.2 %
- hornbeam: 1.2 %
- common beech: 0 %
- downy oak: 0 %
- field maple: 0 %
- manna ash: 0 %

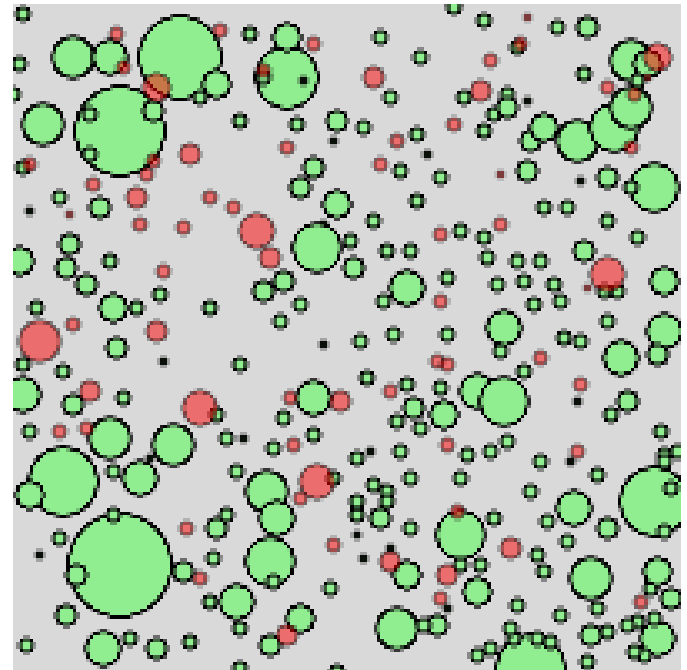
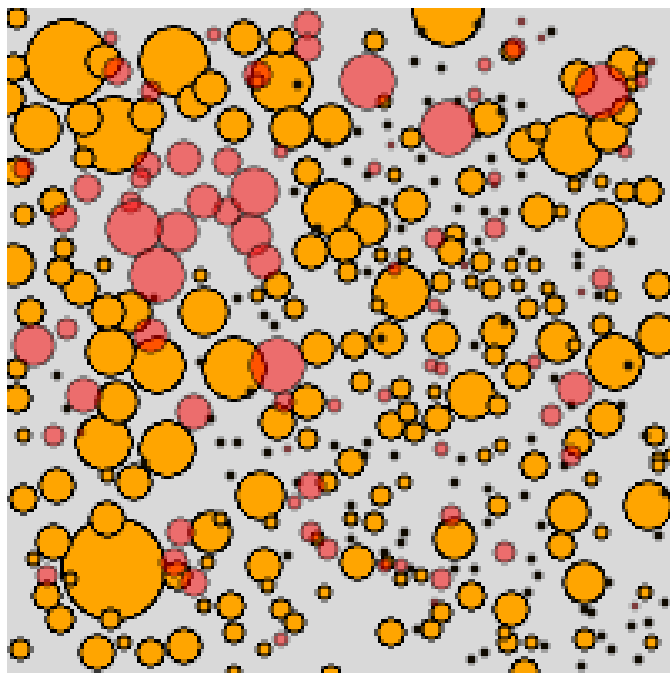
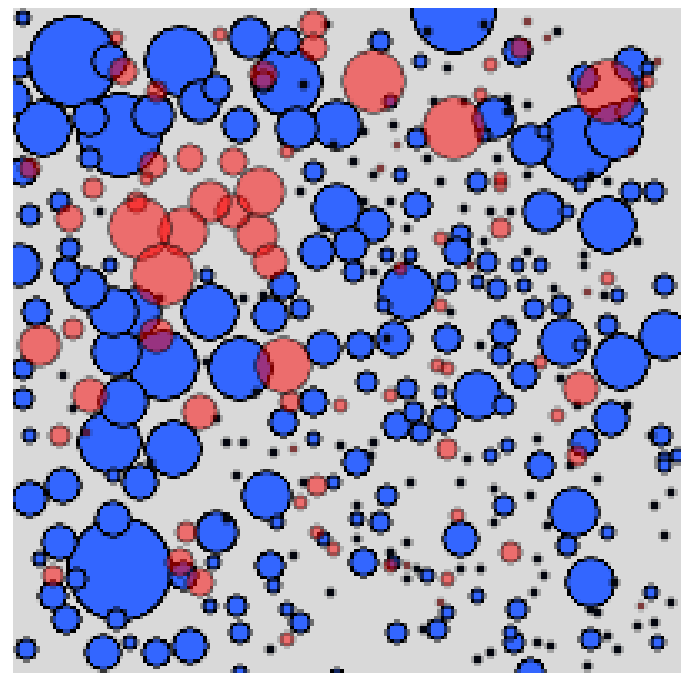
DBH distribution of removed trees**Removed trees (details by tree species)**

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	10	0.5	5.4	416	271	20
Italian maple	1	0	0.3	25	7	2
Turkey oak	70	6.4	90.4	6913	1676	79
common beech	0	0	0	0	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	1	0	0.3	25	0	0
manna ash	0	0	0	0	0	0
Total	82	7	96.5	7379	1954	101

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

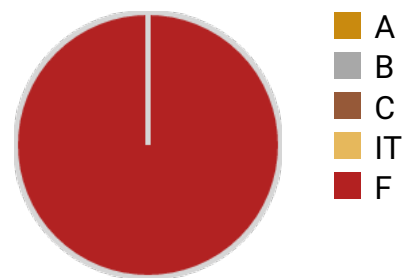
Total value of removed trees: 7379 €

Percentage of total stand value: 23.7 %

Stand value after harvest: 23761 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	0	0
downy oak	0	0
Turkey oak	6913	77
field maple	0	0
Italian maple	25	77
manna ash	0	0
hornbeam	25	77
European hop-hornbeam	416	77
Total	7379	77

**Wood quality distribution
(m³ in %)**

Quality class	m ³	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	96.5	100

Habitat values

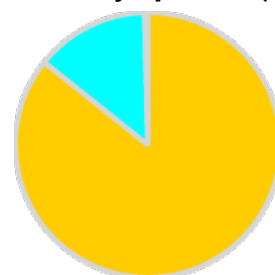
Total habitat value of removed trees: 1954 pts.

Percentage of total stand value: 18.5 %

Stand value after harvest: 8616 pts.

Habitat value by tree species [pts.]

Tree species	Total	Per m ³	Microhabitats [N]
common beech	0	0	0
downy oak	0	0	0
Turkey oak	1676	18.5	79
field maple	0	0	0
Italian maple	7	21.4	2
manna ash	0	0	0
hornbeam	0	0	0
European hop-hornbeam	271	49.9	20
Total	1954	20.3	101

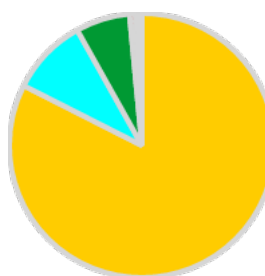
**Habitat value (points) of removed
trees by species (in %)**

Turkey oak	(85.8 %)
European hop-hornbeam	(13.9 %)
Italian maple	(0.4 %)
common beech	(0 %)
downy oak	(0 %)
field maple	(0 %)
manna ash	(0 %)
hornbeam	(0 %)

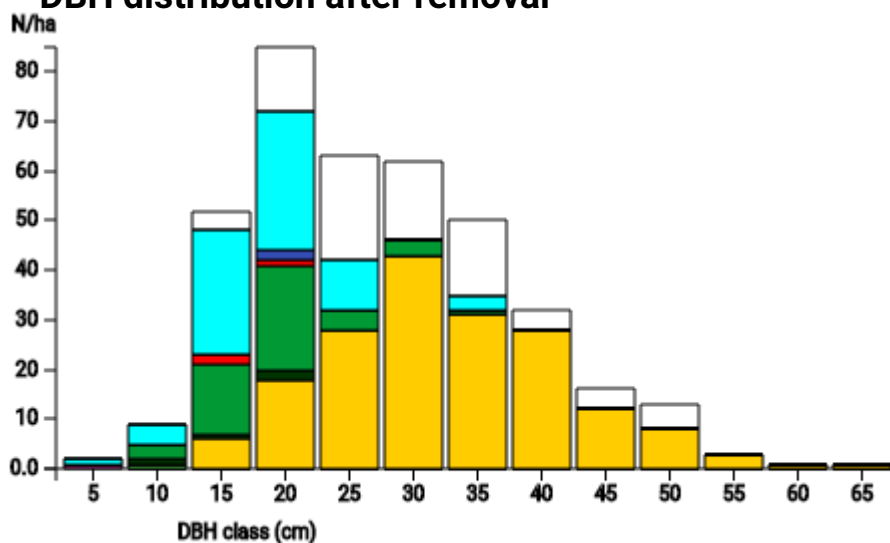
Remaining standVolume: 310.5 m³Basal area: 22.9 m²

Economic value: 23761 €

Habitat value: 8616 pts.

Remaining trees by volume (m³ in %)

- Turkey oak: 82.4 %
- European hop-hornbeam: 9.4 %
- Italian maple: 6.6 %
- manna ash: 0.7 %
- field maple: 0.4 %
- hornbeam: 0.3 %
- common beech: 0.1 %
- downy oak: 0 %

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)
European hop-hornbeam	71	2.5	29.2	2231	1398	81
Italian maple	46	1.8	20.4	1563	910	63
Turkey oak	179	18.3	256	19586	6131	322
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	2	0.1	1	77	24	1
manna ash	3	0.1	2.3	174	38	4
Total	307	22.9	310.6	23761	8616	477

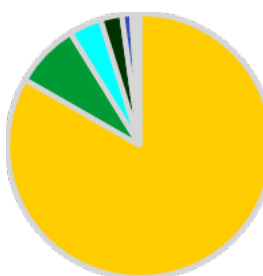
Retention treesVolume: 39.8 m³

Elite trees: 30

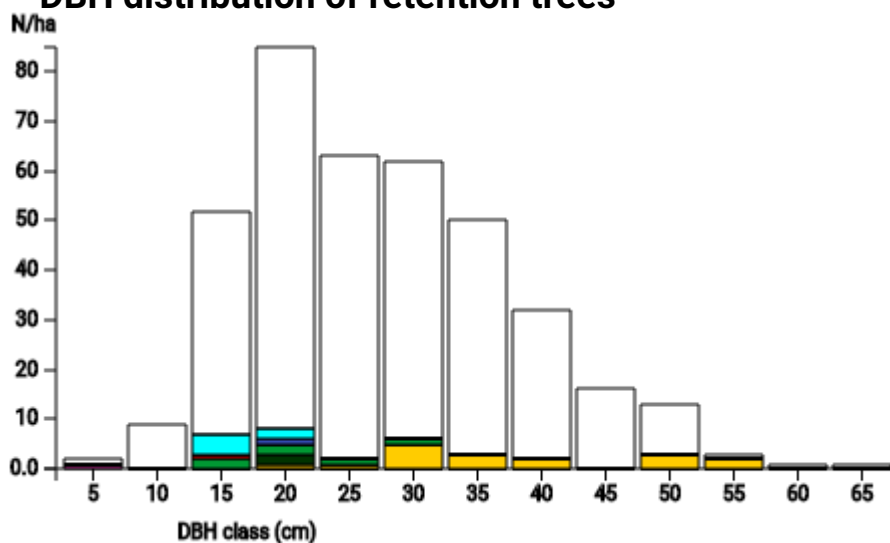
Habitat trees: 0

Economic value: 3044 €

Habitat value: 1092 pts.

Retention trees by volume (m³ in %)

- Turkey oak: 83.3 %
- Italian maple: 7.9 %
- European hop-hornbeam: 4 %
- field maple: 2.6 %
- hornbeam: 1.2 %
- common beech: 0.5 %
- manna ash: 0.5 %
- downy oak: 0 %

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

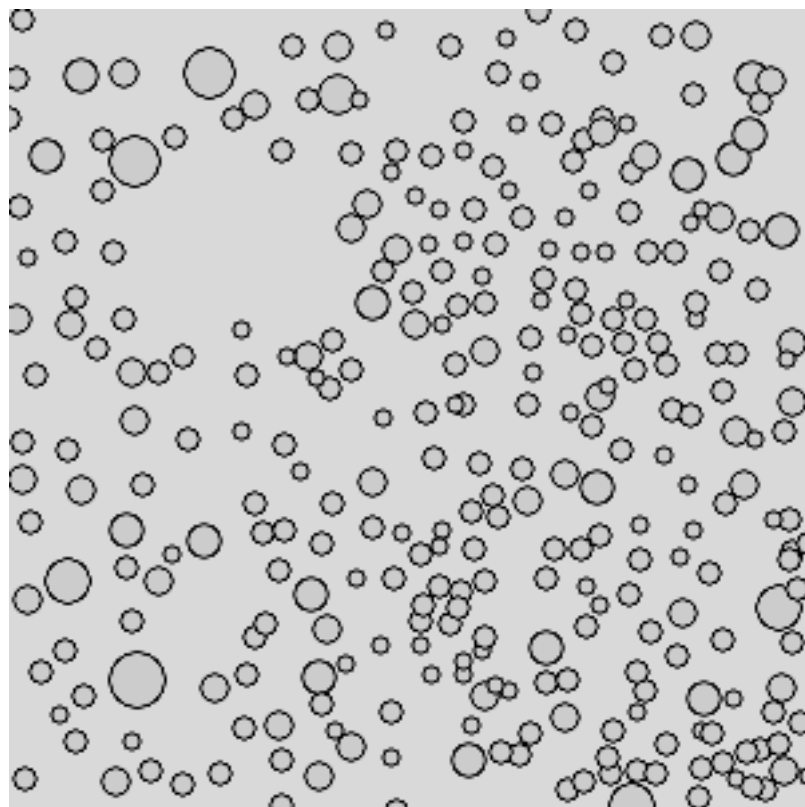
Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	6	0.2	1.6	122	109	7
Italian maple	6	0.3	3.1	239	123	8
Turkey oak	17	2.2	33.2	2536	758	46
common beech	1	0	0.2	16	0	0
downy oak	0	0	0	0	0	0
field maple	2	0.1	1	80	48	2
hornbeam	1	0	0.5	35	24	1
manna ash	1	0	0.2	16	30	2
Total	34	2.8	39.8	3044	1092	66

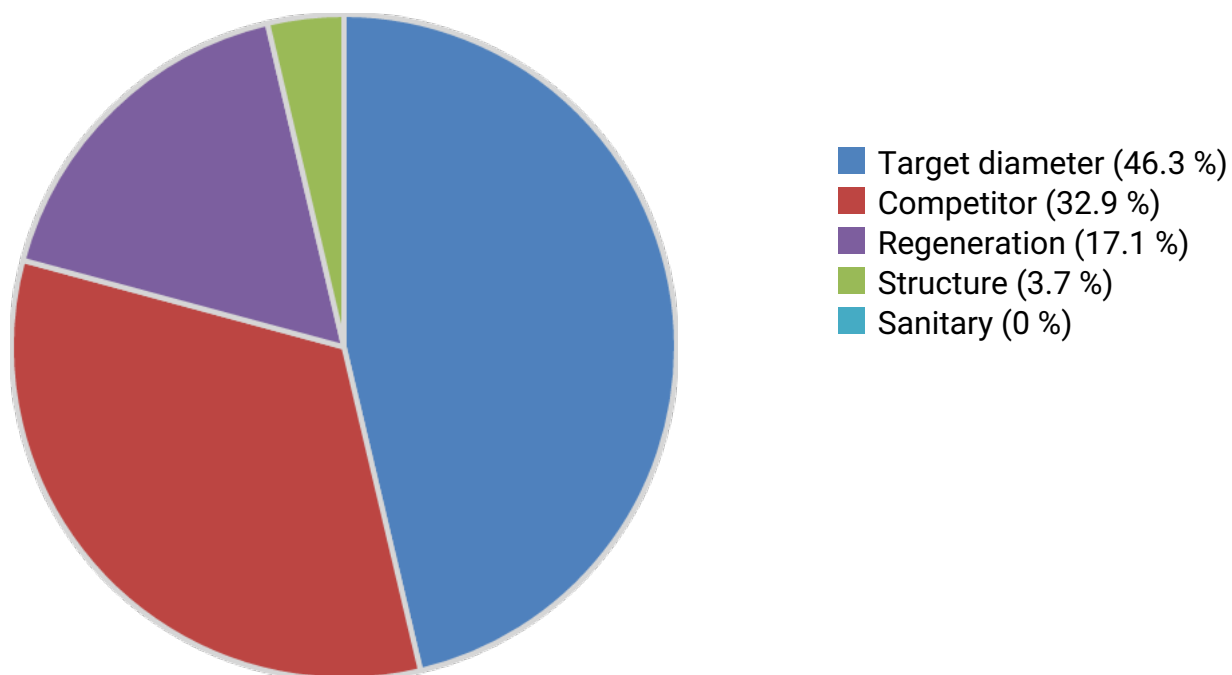
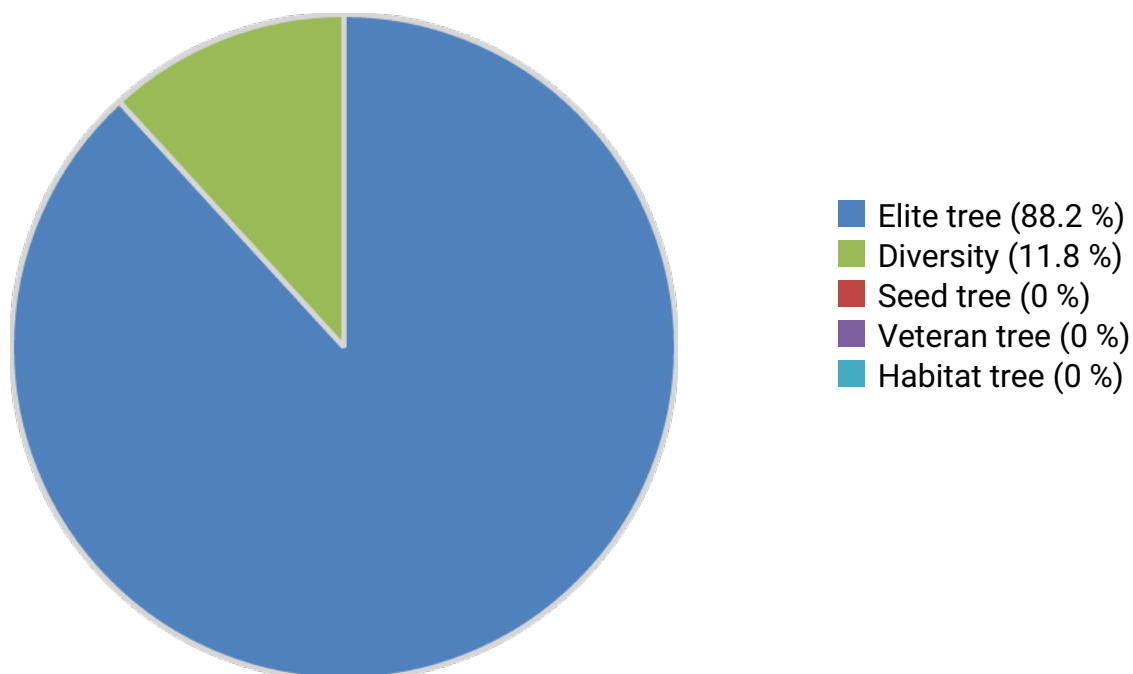
Number of habitat trees	[N]	0
Habitat value	pts.	0
	[% of total]	0
Economic value	[€]	0
	[% of total]	0
Number of microhabitats	[N]	0
	[% of total]	0

Habitat tree distribution by species (N in %)

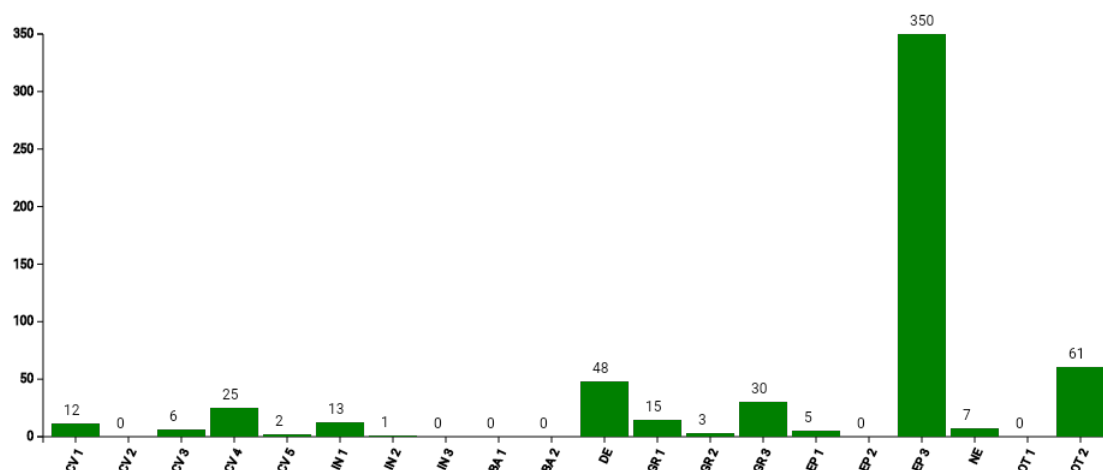
	common beech: NaN %
	downy oak: NaN %
	Turkey oak: NaN %
	field maple: NaN %
	Italian maple: NaN %
	manna ash: NaN %
	hornbeam: NaN %
	European hop-hornbeam: NaN %

Spatial distribution of habitat trees

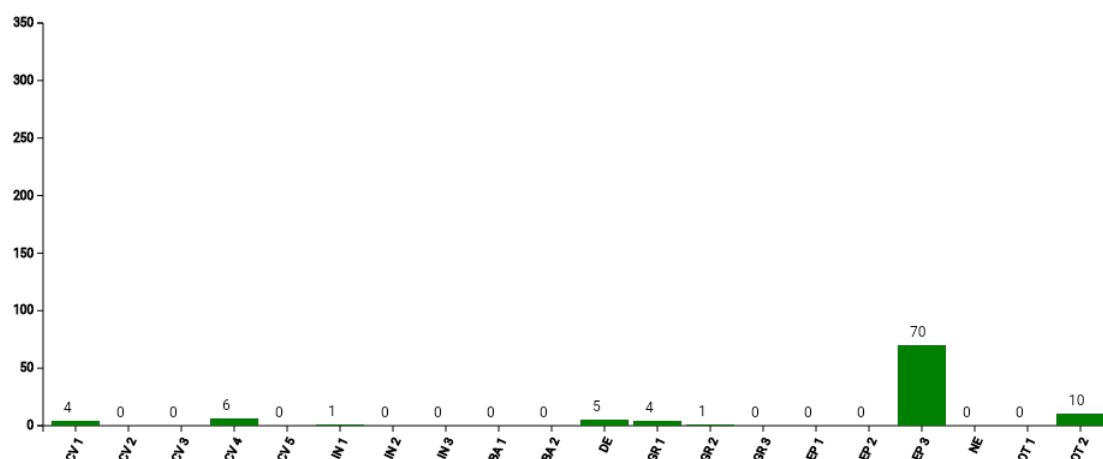


Reasons for removal**Reasons for retention**

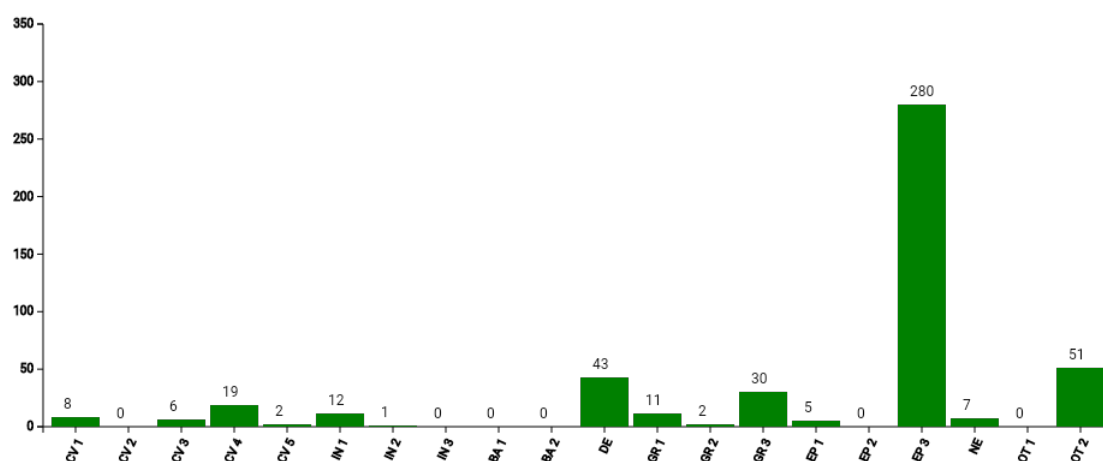
Distribution of tree microhabitats by code (N total)



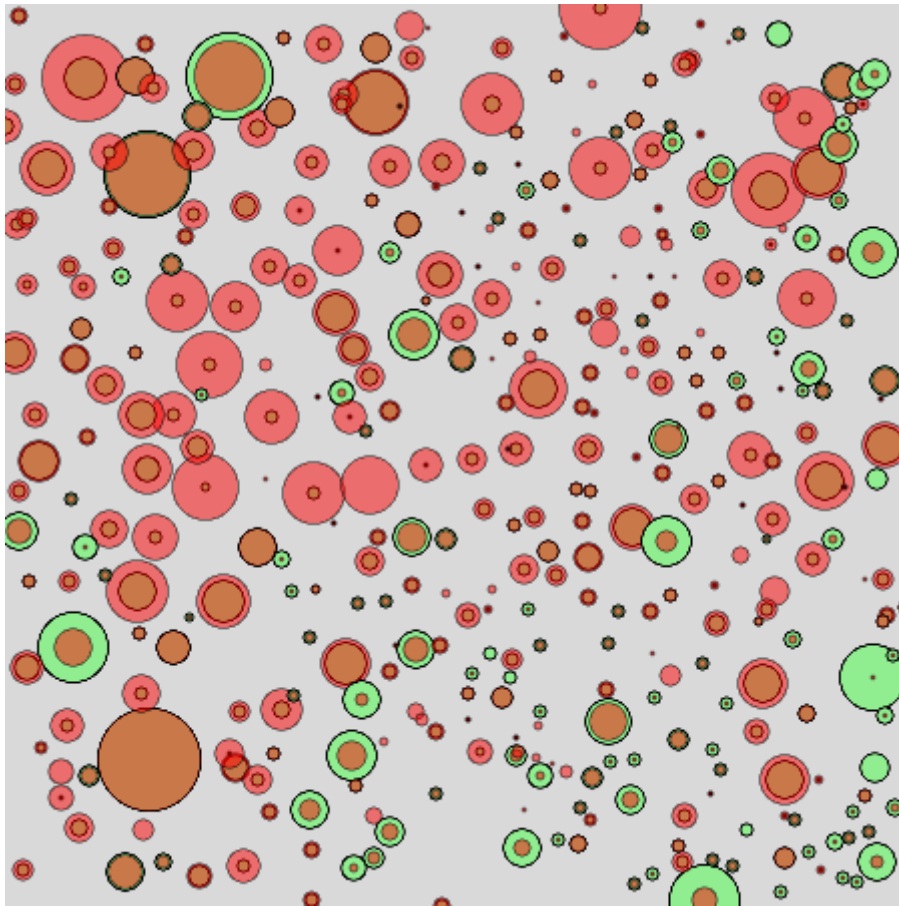
Removed tree microhabitats by code (N removed)



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 ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (317) Quercus cerris	51	0.2	3.2	249	24	Competitor
Turkey oak (57) Quercus cerris	51	0.2	3.4	258	24	Regeneration
Turkey oak (306) Quercus cerris	50	0.2	3.2	246	24	Competitor
Turkey oak (77) Quercus cerris	50	0.2	3	232	0	Target diameter
Turkey oak (298) Quercus cerris	50	0.2	3.3	252	30	Competitor
Turkey oak (52) Quercus cerris	49	0.19	3.2	244	24	Regeneration
Turkey oak (47) Quercus cerris	48.5	0.19	2.5	189	4	Regeneration
Turkey oak (59) Quercus cerris	45	0.16	2.3	174	60	Regeneration
Turkey oak (82) Quercus cerris	45	0.16	2.2	169	64	Competitor
Turkey oak (51) Quercus cerris	44	0.15	2.5	191	24	Regeneration
Turkey oak (87) Quercus cerris	41	0.13	1.8	142	60	Target diameter
Turkey oak (32) Quercus cerris	40	0.13	1.4	110	36	Regeneration
Turkey oak (85) Quercus cerris	40	0.13	1.8	141	30	Target diameter
Turkey oak (75) Quercus cerris	39.5	0.12	1.7	131	36	Target diameter
Turkey oak (45) Quercus cerris	39	0.12	2	151	24	Regeneration
Turkey oak (175) Quercus cerris	38.5	0.12	1.7	127	24	Target diameter
Turkey oak (60) Quercus cerris	38.5	0.12	1.6	126	40	Regeneration
Turkey oak (130) Quercus cerris	37	0.11	1.6	119	24	Target diameter
Turkey oak (46) Quercus cerris	36.5	0.11	1.7	132	24	Regeneration
Turkey oak (33) Quercus cerris	36	0.1	1.6	122	4	Regeneration
Turkey oak (38)	36	0.1	1.1	81	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (6) Quercus cerris	36	0.1	1.4	111	0	Target diameter
Turkey oak (31) Quercus cerris	36	0.1	1.5	115	24	Regeneration
Turkey oak (132) Quercus cerris	36	0.1	1.5	111	4	Target diameter
Turkey oak (8) Quercus cerris	35.5	0.1	1.3	98	24	Competitor
Turkey oak (14) Quercus cerris	35.5	0.1	1.6	122	24	Competitor
Turkey oak (120) Quercus cerris	35.5	0.1	1.1	87	24	Target diameter
Turkey oak (11) Quercus cerris	35	0.1	1.5	116	18	Competitor
Turkey oak (112) Quercus cerris	34.5	0.09	1.2	95	60	Target diameter
Turkey oak (42) Quercus cerris	34	0.09	1.3	98	12	Competitor
Turkey oak (293) Quercus cerris	33.5	0.09	1.2	89	24	Competitor
Turkey oak (134) Quercus cerris	33	0.09	1.2	94	0	Target diameter
Turkey oak (19) Quercus cerris	33	0.09	1.2	93	50	Competitor
Turkey oak (106) Quercus cerris	32	0.08	1.1	81	24	Target diameter
Turkey oak (74) Quercus cerris	32	0.08	1	73	24	Target diameter
Turkey oak (29) Quercus cerris	32	0.08	1	79	24	Competitor
Turkey oak (252) Quercus cerris	32	0.08	0.9	66	36	Target diameter
Turkey oak (235) Quercus cerris	32	0.08	1	74	36	Target diameter
European hop-hornbeam (373) Ostrya carpinifolia	32	0.08	0.9	66	58	Competitor
Turkey oak (124) Quercus cerris	31.5	0.08	0.9	65	0	Target diameter
Turkey oak (181) Quercus cerris	31	0.08	0.9	68	0	Target diameter

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (126) Quercus cerris	30.5	0.07	0.8	60	24	Target diameter
Turkey oak (358) Quercus cerris	30.5	0.07	0.8	63	24	Target diameter
Turkey oak (194) Quercus cerris	30	0.07	1.1	82	24	Target diameter
Turkey oak (224) Quercus cerris	29.5	0.07	0.8	63	24	Target diameter
Turkey oak (355) Quercus cerris	29.5	0.07	0.9	72	24	Competitor
Turkey oak (91) Quercus cerris	29	0.07	1	74	24	Target diameter
Turkey oak (44) Quercus cerris	29	0.07	0.9	73	32	Regeneration
Turkey oak (37) Quercus cerris	29	0.07	0.9	65	24	Regeneration
Turkey oak (206) Quercus cerris	28.5	0.06	0.9	70	24	Target diameter
Turkey oak (114) Quercus cerris	28	0.06	0.9	66	19	Target diameter
Turkey oak (385) Quercus cerris	28	0.06	0.8	62	24	Target diameter
European hop-hornbeam (302) Ostrya carpinifolia	27.5	0.06	0.8	59	30	Competitor
Turkey oak (2) Quercus cerris	27.5	0.06	0.8	64	24	Competitor
Turkey oak (93) Quercus cerris	27	0.06	0.8	60	36	Target diameter
Turkey oak (154) Quercus cerris	27	0.06	0.6	49	36	Target diameter
Turkey oak (258) Quercus cerris	27	0.06	0.6	48	36	Target diameter
European hop-hornbeam (336) Ostrya carpinifolia	26.5	0.06	0.6	47	14	Competitor
Turkey oak (295) Quercus cerris	26	0.05	0.7	52	24	Structure
Turkey oak (170) Quercus cerris	26	0.05	0.6	47	21	Target diameter
Turkey oak (171) Quercus cerris	25.5	0.05	0.6	48	24	Target diameter
European hop-hornbeam (310)	25.5	0.05	0.6	50	/	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Ostrya carpinifolia						
Turkey oak (3) Quercus cerris	25	0.05	0.6	49	24	Competitor
Turkey oak (186) Quercus cerris	25	0.05	0.6	46	24	Target diameter
Turkey oak (34) Quercus cerris	25	0.05	0.7	53	24	Regeneration
Turkey oak (365) Quercus cerris	24.5	0.05	0.6	46	0	Target diameter
Turkey oak (173) Quercus cerris	24	0.05	0.6	44	24	Target diameter
European hop-hornbeam (328) Ostrya carpinifolia	24	0.05	0.5	40	28	Competitor
Turkey oak (259) Quercus cerris	23.5	0.04	0.5	40	0	Target diameter
European hop-hornbeam (340) Ostrya carpinifolia	23.5	0.04	0.5	38	24	Competitor
Turkey oak (96) Quercus cerris	23	0.04	0.5	39	24	Target diameter
Turkey oak (335) Quercus cerris	23	0.04	0.6	44	0	Competitor
Turkey oak (102) Quercus cerris	23	0.04	0.5	38	24	Target diameter
European hop-hornbeam (321) Ostrya carpinifolia	22	0.04	0.4	34	28	Competitor
Turkey oak (275) Quercus cerris	22	0.04	0.4	27	24	Target diameter
Turkey oak (368) Quercus cerris	22	0.04	0.4	34	0	Competitor
European hop-hornbeam (308) Ostrya carpinifolia	21	0.04	0.4	33	48	Structure
Italian maple (377) Acer opalus	20	0.03	0.3	25	7	Competitor
European hop-hornbeam (289) Ostrya carpinifolia	19.5	0.03	0.4	30	10	Competitor
Turkey oak (312) Quercus cerris	18	0.03	0.2	19	28	Structure
hornbeam (292) Carpinus betulus	17.5	0.02	0.3	25	0	Competitor
European hop-hornbeam (230) Ostrya carpinifolia	16	0.02	0.3	19	24	Target diameter

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (26) Quercus cerris	57.5	0.26	4.3	329	148	Elite tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Elite tree
Turkey oak (78) Quercus cerris	52	0.21	3.1	238	24	Elite tree
Turkey oak (80) Quercus cerris	51.5	0.21	3.5	266	16	Elite tree
Turkey oak (101) Quercus cerris	51	0.2	3.3	253	66	Elite tree
Turkey oak (15) Quercus cerris	41.5	0.14	1.9	142	60	Elite tree
Turkey oak (92) Quercus cerris	41	0.13	1.6	122	60	Elite tree
Turkey oak (4) Quercus cerris	38.5	0.12	2	155	24	Elite tree
Turkey oak (131) Quercus cerris	37	0.11	1.5	116	40	Elite tree
Turkey oak (40) Quercus cerris	35	0.1	1.5	114	24	Elite tree
Turkey oak (136) Quercus cerris	34	0.09	1.3	103	4	Elite tree
Turkey oak (357) Quercus cerris	33.5	0.09	1.1	86	24	Elite tree
Turkey oak (53) Quercus cerris	32.5	0.08	1.1	81	36	Elite tree
Turkey oak (83) Quercus cerris	32	0.08	1.1	87	24	Elite tree
Turkey oak (274) Quercus cerris	30	0.07	0.7	55	16	Elite tree
Italian maple (318) Acer opalus	30	0.07	0.9	71	27	Elite tree
Italian maple (267) Acer opalus	28	0.06	0.7	52	60	Elite tree
Turkey oak (12) Quercus cerris	27.5	0.06	1	80	24	Elite tree
Italian maple (311) Acer opalus	24	0.05	0.6	45	24	Elite tree
European hop-hornbeam (354) Ostrya carpinifolia	22.5	0.04	0.4	29	0	Diversity
field maple (297)	22.5	0.04	0.6	42	24	Elite tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Acer campestre						
European hop-hornbeam (205) Ostrya carpinifolia	22.5	0.04	0.5	37	24	Elite tree
Italian maple (193) Acer opalus	21.5	0.04	0.4	29	4	Elite tree
hornbeam (291) Carpinus betulus	21.5	0.04	0.5	35	24	Elite tree
field maple (352) Acer campestre	21	0.04	0.5	38	24	Elite tree
Turkey oak (233) Quercus cerris	21	0.04	0.4	29	24	Elite tree
Italian maple (113) Acer opalus	19.5	0.03	0.3	21	4	Elite tree
Italian maple (347) Acer opalus	18.5	0.03	0.3	22	4	Elite tree
European hop-hornbeam (256) Ostrya carpinifolia	17.5	0.02	0.2	17	6	Elite tree
European hop-hornbeam (269) Ostrya carpinifolia	17	0.02	0.2	14	24	Diversity
European hop-hornbeam (353) Ostrya carpinifolia	16.5	0.02	0.2	15	31	Diversity
mannan ash (43) Fraxinus ornus	15	0.02	0.2	16	30	Elite tree
European hop-hornbeam (270) Ostrya carpinifolia	15	0.02	0.1	10	24	Diversity
common beech (7) Fagus sylvatica	9	0.01	0.2	16	0	Elite tree