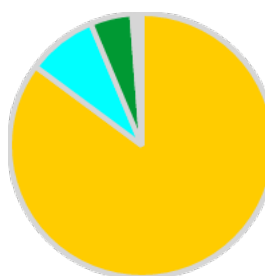


07/04/2021 Laz_gr3_bio

Site conditions

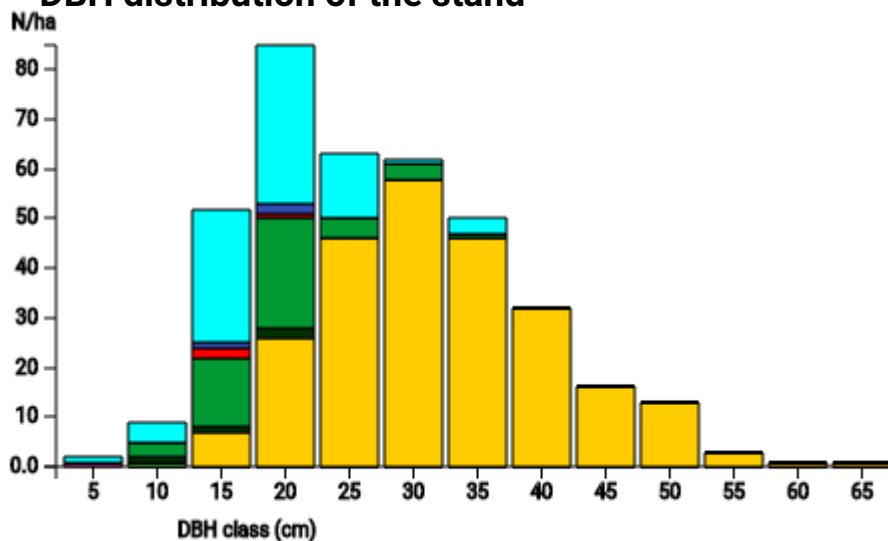
Altitude: 870 m.a.s.l.
 Geology / Bedrock: Alluvial and mixed beds
 Soil type: Cambisol – Leptosol with Luvisol of the Central Appenino Mountains.
 Natural forest community: Aceri obtusati-Quercu cerridis sigmetum
 Mean annual temperature: 12.4 C;
 Mean annual precipitation: 1154 mm; Ownership: State-owned 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



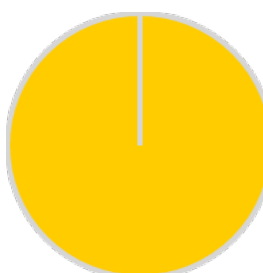
Initial stand (details by tree species)

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 trees

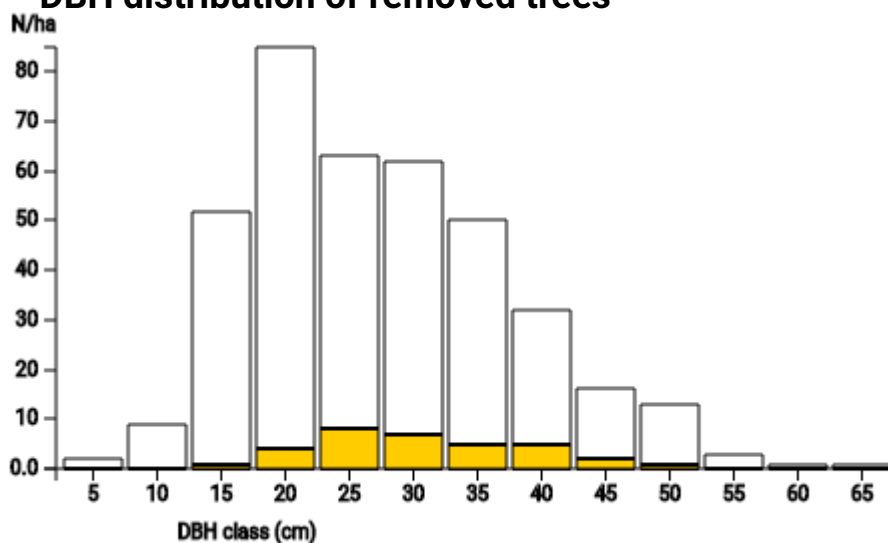
Volume: 40.8 m³
 Basal area: 3 m²
 Economic value: 3118 €
 Habitat value: 686 pts.

Removed trees (N in %)



- Turkey oak: 100 %
- common beech: 0 %
- downy oak: 0 %
- field maple: 0 %
- Italian maple: 0 %
- manna ash: 0 %
- hornbeam: 0 %
- European hop-hornbeam: 0 %

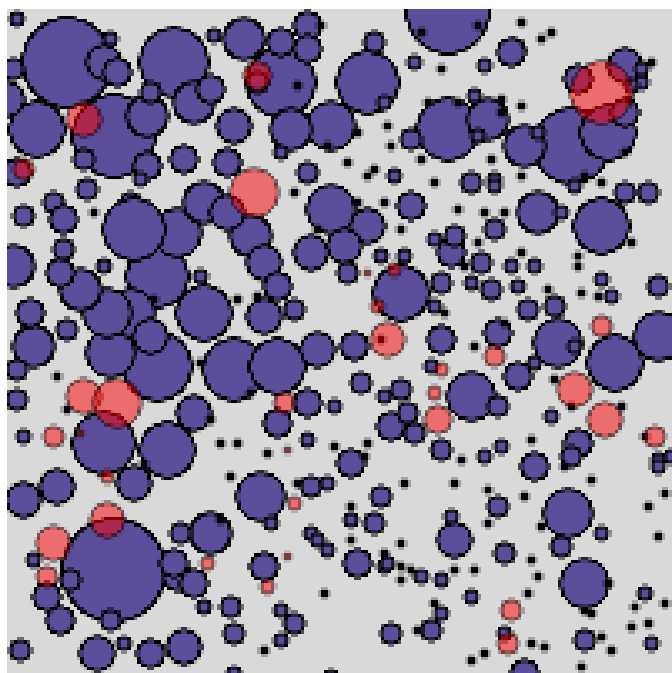
DBH distribution of removed trees



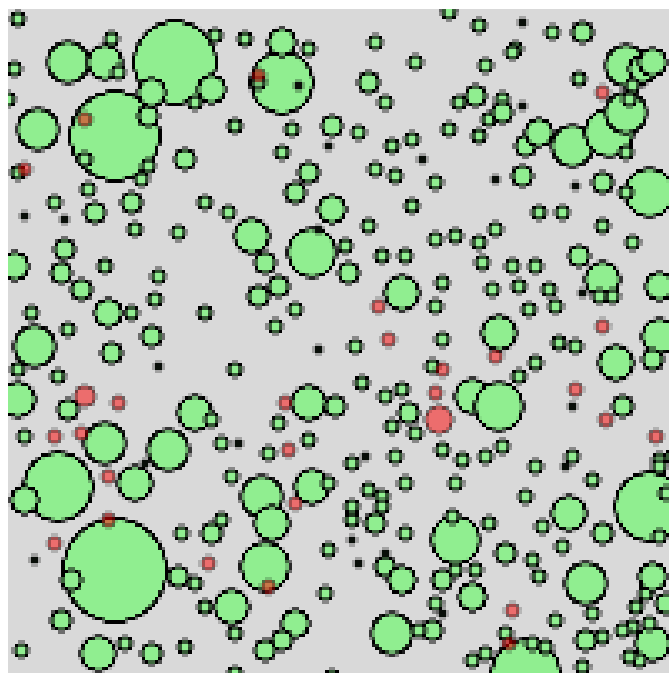
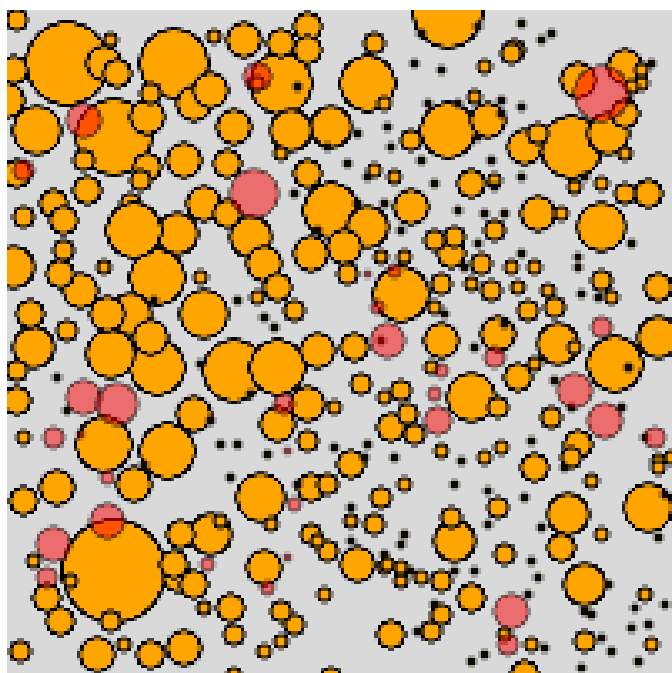
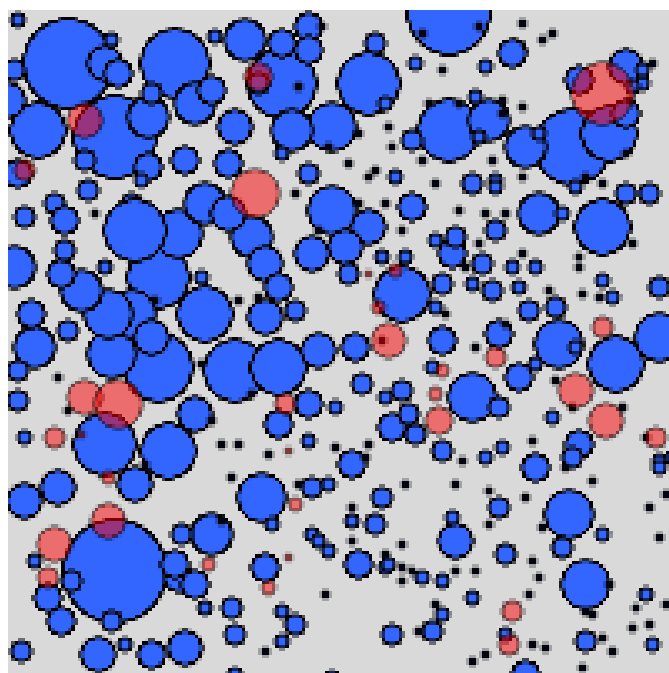
Removed trees (details by tree species)

Tree species	N/ha	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	0	0	0	0	0	0
Italian maple	0	0	0	0	0	0
Turkey oak	33	3	40.8	3118	686	34
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	0	0	0	0	0	0
manna ash	0	0	0	0	0	0
Total	33	3	40.8	3118	686	34

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.

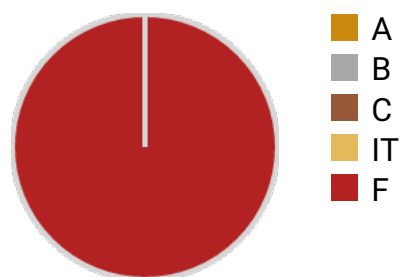
Economic values

Total value of removed trees: 3118 €
 Percentage of total stand value: 10 %
 Stand value after harvest: 28021 €

Economic value by tree species [€]

Tree species	Total	Per m ³
common beech	0	0
downy oak	0	0
Turkey oak	3118	76
field maple	0	0
Italian maple	0	0
manna ash	0	0
hornbeam	0	0
European hop-hornbeam	0	0
Total	3118	76

Wood quality distribution (m³ in %)



Quality class	m ³	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	40.8	100

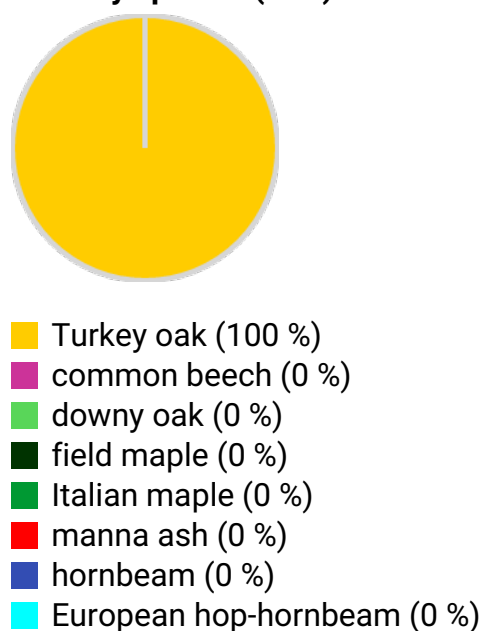
Habitat values

Total habitat value of removed trees: 686 pts.
 Percentage of total stand value: 6.5 %
 Stand value after harvest: 9884 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	686	16.8	34
field maple	0	0	0
Italian maple	0	0	0
manna ash	0	0	0
hornbeam	0	0	0
European hop-hornbeam	0	0	0
Total	686	16.8	34

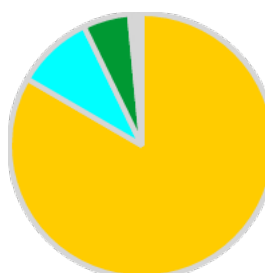
Habitat value (points) of removed trees by species (in %)



Remaining stand

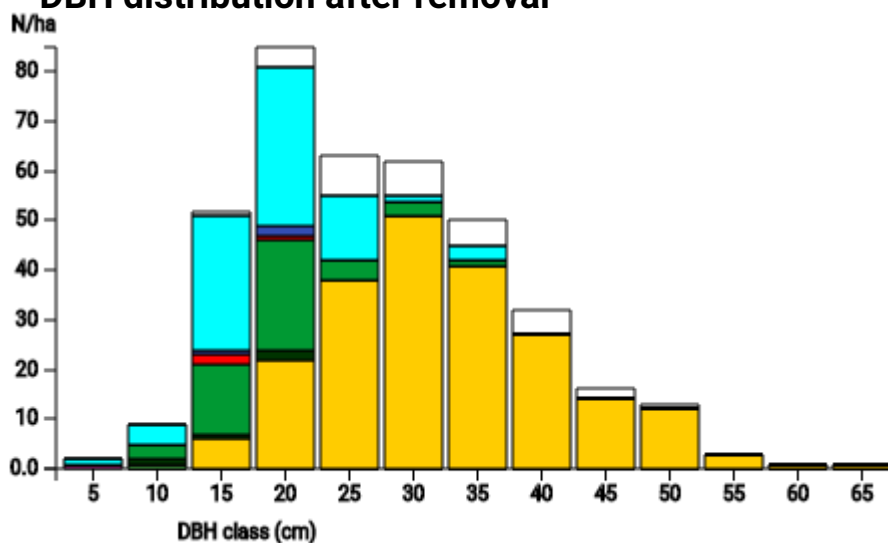
Volume: 366.2 m³
 Basal area: 26.9 m²
 Economic value: 28021 €
 Habitat value: 9884 pts.

Remaining trees by volume (m³ in %)



- Turkey oak: 83.4 %
- European hop-hornbeam: 9.4 %
- Italian maple: 5.7 %
- manna ash: 0.6 %
- field maple: 0.4 %
- hornbeam: 0.4 %
- 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	81	3	34.6	2647	1669	101
Italian maple	47	1.8	20.8	1588	917	65
Turkey oak	216	21.8	305.6	23381	7121	367
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	356	26.9	366.3	28021	9884	544

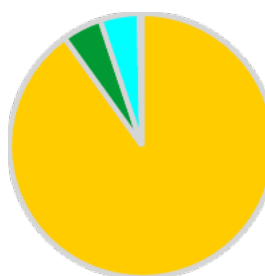
Retention treesVolume: 71.8 m³

Elite trees: 0

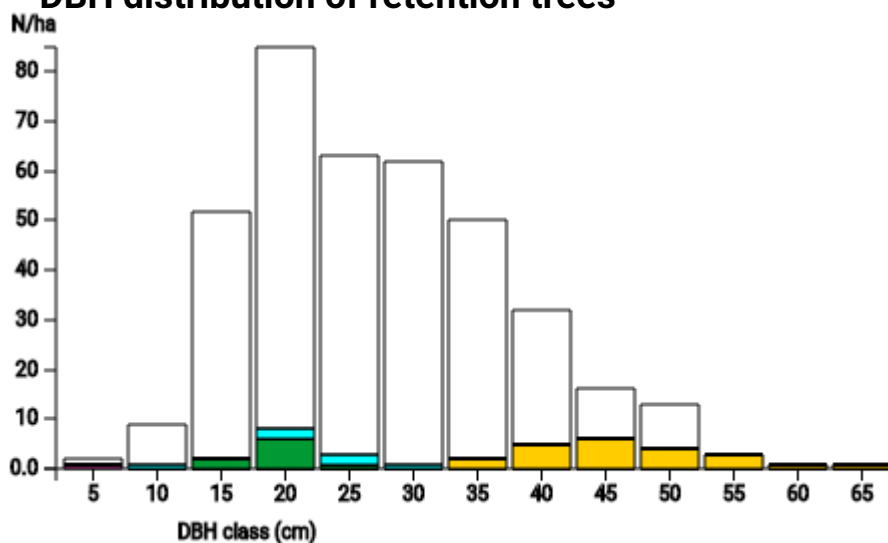
Habitat trees: 33

Economic value: 5495 €

Habitat value: 1950 pts.

Retention trees by volume (m³ in %)

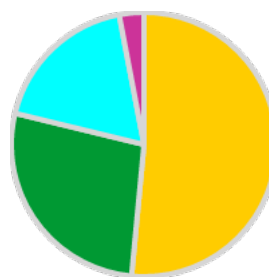
Turkey oak: 90.1 %
Italian maple: 4.8 %
European hop-hornbeam: 4.8 %
common beech: 0.3 %
downy oak: 0 %
field maple: 0 %
manna ash: 0 %
hornbeam: 0 %

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	0.3	3.5	266	178	10
Italian maple	9	0.3	3.4	261	159	12
Turkey oak	22	4.2	64.7	4953	1613	101
common beech	1	0	0.2	16	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	0	0	0	0	0	0
manna ash	0	0	0	0	0	0
Total	38	4.8	71.8	5495	1950	123

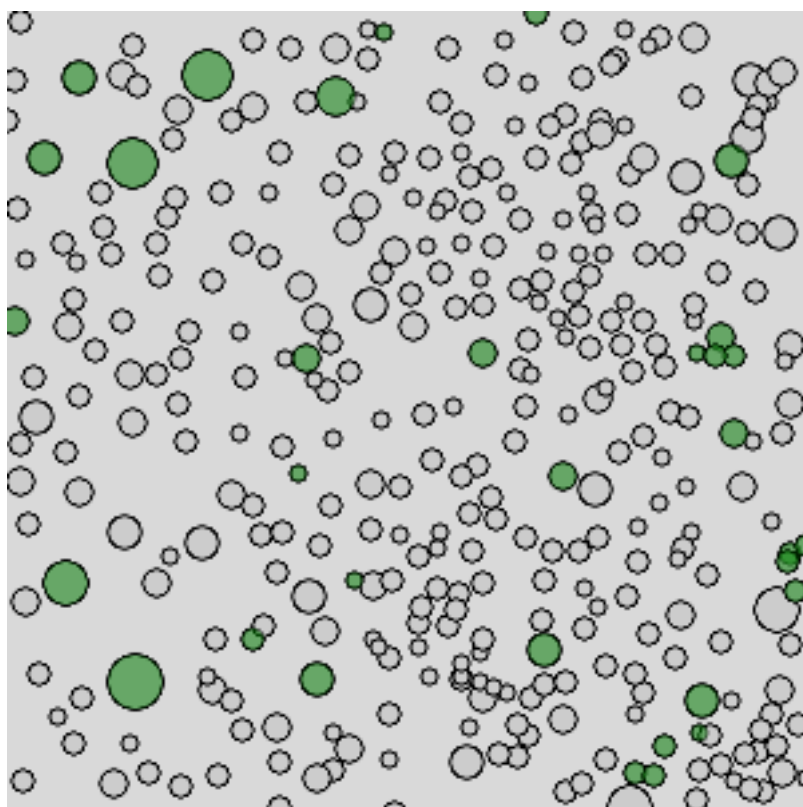
Number of habitat trees	[N]	33
Habitat value	pts.	1748
	[% of total]	16.5
Economic value	[€]	4480
	[% of total]	14.4
Number of microhabitats	[N]	110
	[% of total]	19

Habitat tree distribution by species (N in %)

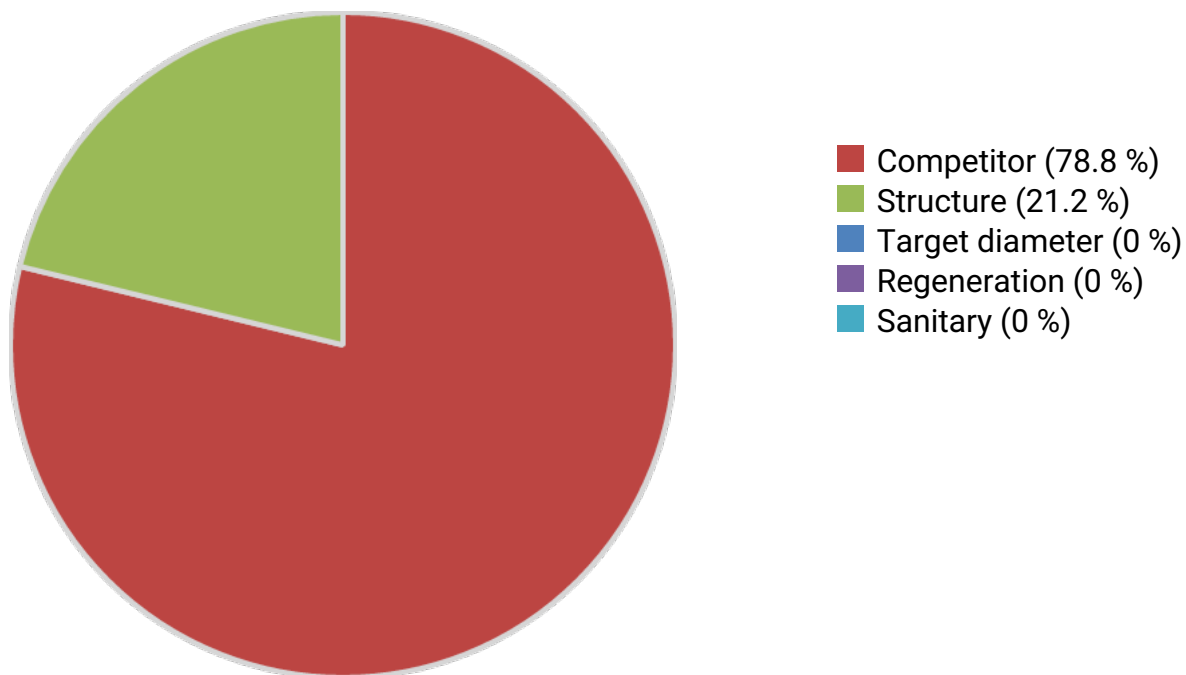


■ Turkey oak: 51.5 %
■ Italian maple: 27.3 %
■ European hop-hornbeam: 18.2 %
■ common beech: 3 %
■ downy oak: 0 %
■ field maple: 0 %
■ manna ash: 0 %
■ hornbeam: 0 %

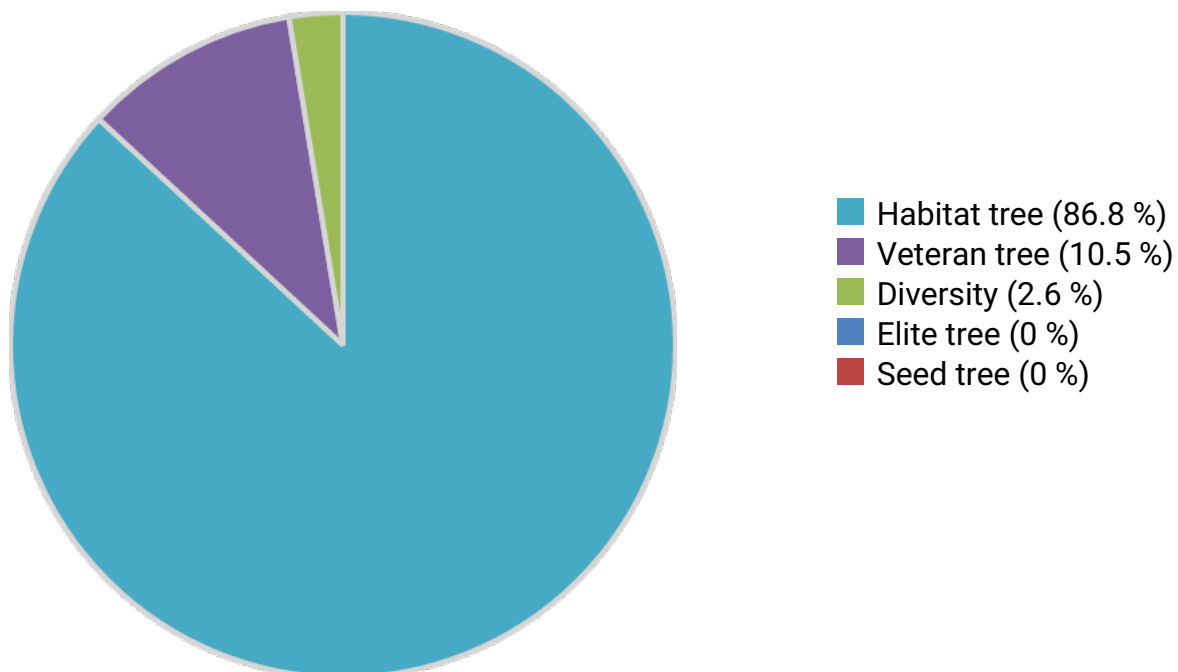
Spatial distribution of habitat trees



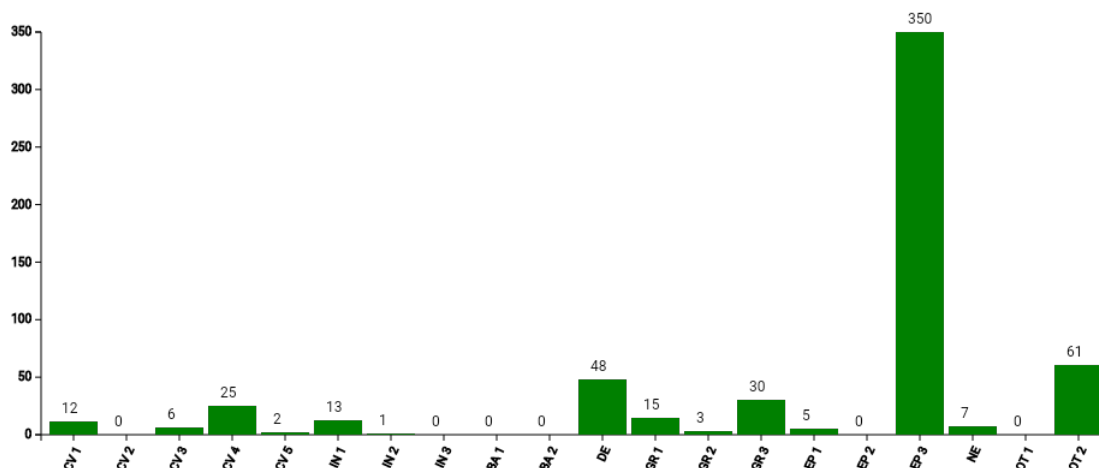
Reasons for removal



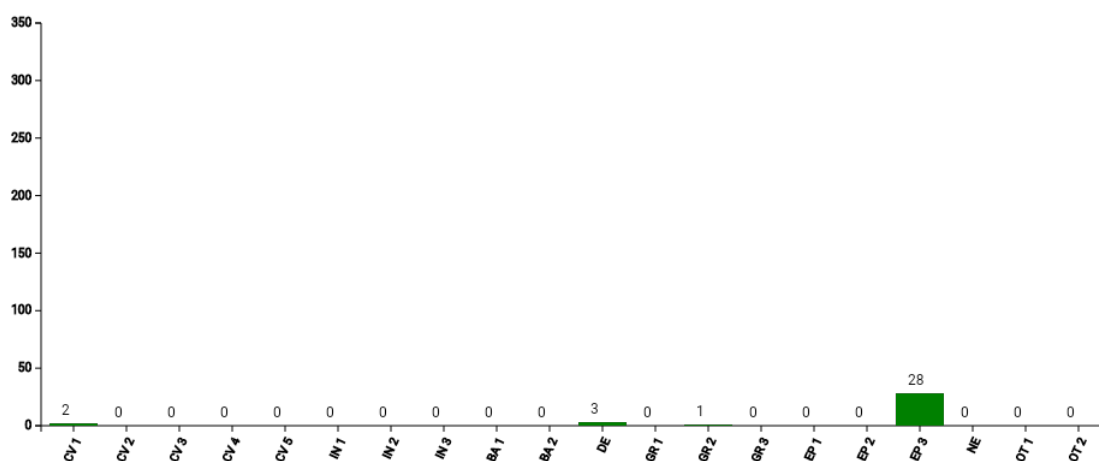
Reasons for retention



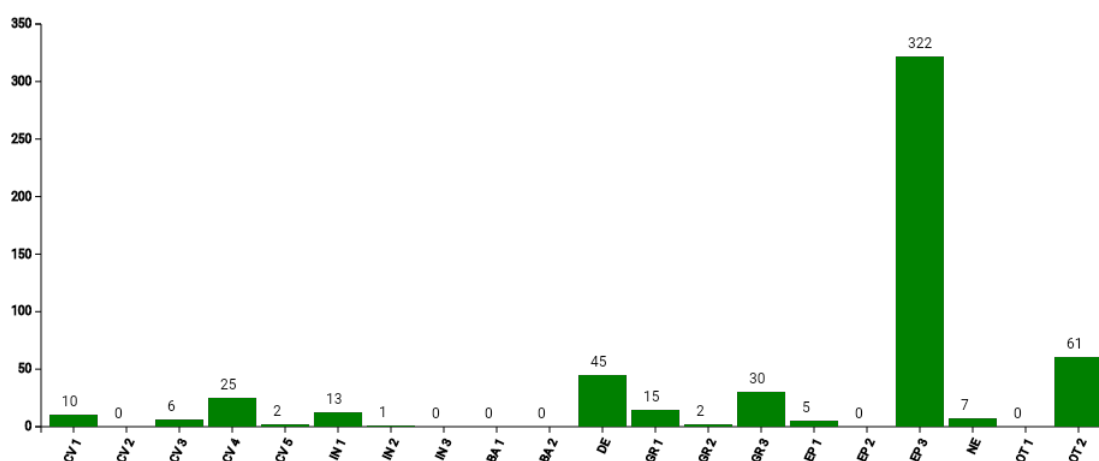
Distribution of tree microhabitats by code (N total)



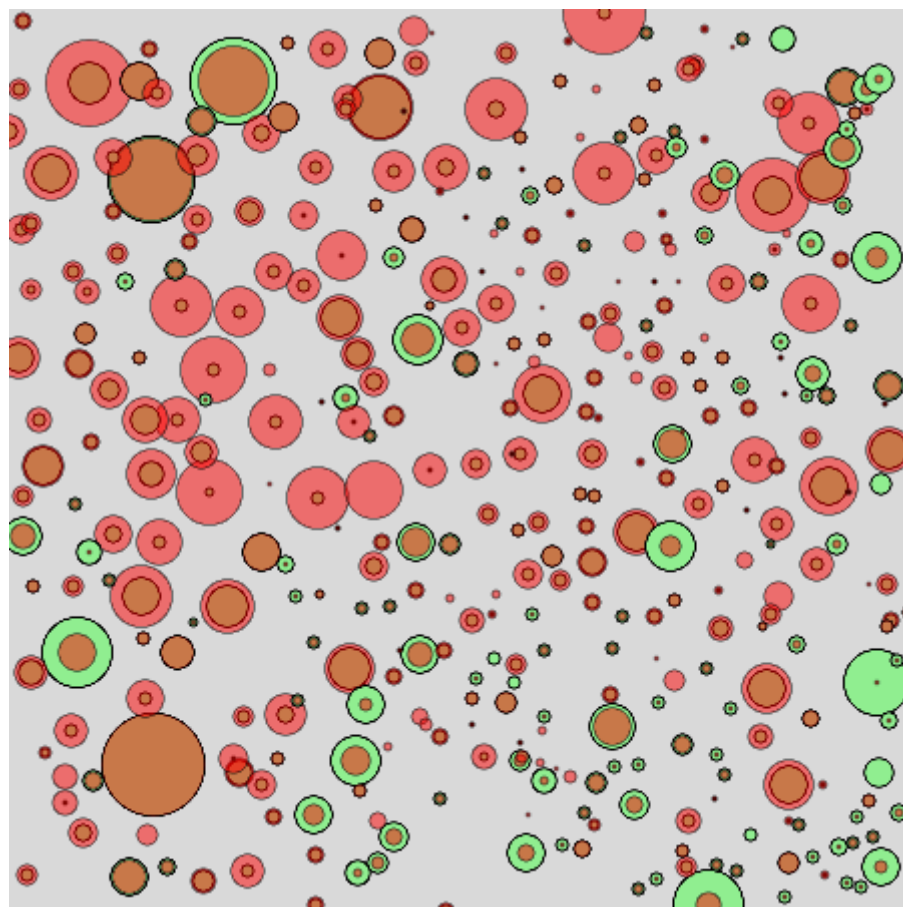
Removed tree microhabitats by code (N removed)



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 (306) Quercus cerris	50	0.2	3.2	246	24	Competitor
Turkey oak (47) Quercus cerris	48.5	0.19	2.5	189	4	Structure
Turkey oak (86) Quercus cerris	45	0.16	2.4	183	24	Structure
Turkey oak (179) Quercus cerris	41.5	0.14	1.7	131	24	Competitor
Turkey oak (158) Quercus cerris	40	0.13	1.7	126	24	Competitor
Turkey oak (119) Quercus cerris	40	0.13	1.6	126	24	Competitor
Turkey oak (27) Quercus cerris	40	0.13	1.9	145	24	Competitor
Turkey oak (85) Quercus cerris	40	0.13	1.8	141	30	Structure
Turkey oak (116) Quercus cerris	39	0.12	1.9	146	18	Competitor
Turkey oak (175) Quercus cerris	38.5	0.12	1.7	127	24	Competitor
Turkey oak (251) Quercus cerris	38	0.11	1.2	93	24	Competitor
Turkey oak (191) Quercus cerris	37.5	0.11	1.6	123	45	Competitor
Turkey oak (11) Quercus cerris	35	0.1	1.5	116	18	Structure
Turkey oak (163) Quercus cerris	33	0.09	1.2	89	24	Competitor
Turkey oak (134) Quercus cerris	33	0.09	1.2	94	0	Competitor
Turkey oak (281) Quercus cerris	32.5	0.08	1	75	24	Competitor
Turkey oak (106) Quercus cerris	32	0.08	1.1	81	24	Structure
Turkey oak (29) Quercus cerris	32	0.08	1	79	24	Competitor
Turkey oak (197) Quercus cerris	32	0.08	1.2	90	24	Competitor
Turkey oak (168) Quercus cerris	30	0.07	1	74	24	Competitor
Turkey oak (91) Quercus cerris	29	0.07	1	74	24	Competitor

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (114) Quercus cerris	28	0.06	0.9	66	19	Competitor
Turkey oak (184) Quercus cerris	28	0.06	0.8	64	24	Competitor
Turkey oak (383) Quercus cerris	27.5	0.06	0.8	60	24	Competitor
Turkey oak (143) Quercus cerris	27	0.06	0.6	48	24	Competitor
Turkey oak (129) Quercus cerris	27	0.06	0.7	52	24	Competitor
Turkey oak (171) Quercus cerris	25.5	0.05	0.6	48	24	Competitor
Turkey oak (107) Quercus cerris	25	0.05	0.6	47	24	Structure
Turkey oak (365) Quercus cerris	24.5	0.05	0.6	46	0	Competitor
Turkey oak (96) Quercus cerris	23	0.04	0.5	39	24	Competitor
Turkey oak (127) Quercus cerris	23	0.04	0.5	37	0	Competitor
Turkey oak (102) Quercus cerris	23	0.04	0.5	38	24	Structure
Turkey oak (363) Quercus cerris	18.5	0.03	0.3	25	0	Competitor

Retention trees

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (133) Quercus cerris	68	0.36	5.4	409	174	Habitat tree
Turkey oak (16) Quercus cerris	60	0.28	4.6	351	72	Habitat tree
Turkey oak (26) Quercus cerris	57.5	0.26	4.3	329	148	Habitat tree
Turkey oak (287) Quercus cerris	57	0.26	4.3	330	24	Habitat tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Habitat tree
Turkey oak (10) Quercus cerris	54	0.23	3.5	269	106	Habitat tree
Turkey oak (326) Quercus cerris	53	0.22	3.9	299	66	Veteran tree
Turkey oak (101) Quercus cerris	51	0.2	3.3	253	66	Veteran tree
Turkey oak (384) Quercus cerris	51	0.2	3	229	60	Habitat tree
Turkey oak (176) Quercus cerris	49	0.19	3	232	60	Habitat tree
Turkey oak (351) Quercus cerris	47	0.17	2.9	224	24	Veteran tree
Turkey oak (28) Quercus cerris	46.5	0.17	2.7	205	66	Habitat tree
Turkey oak (183) Quercus cerris	46	0.17	2.3	179	60	Habitat tree
Turkey oak (232) Quercus cerris	45	0.16	2.5	192	64	Habitat tree
Turkey oak (327) Quercus cerris	45	0.16	2.7	208	76	Habitat tree
Turkey oak (54) Quercus cerris	44	0.15	2.1	160	46	Habitat tree
Turkey oak (121) Quercus cerris	43.5	0.15	2.1	158	30	Habitat tree
Turkey oak (236) Quercus cerris	43	0.15	1.9	143	78	Habitat tree
Turkey oak (128) Quercus cerris	41	0.13	1.5	115	82	Habitat tree
Turkey oak (117) Quercus cerris	41	0.13	1.9	147	121	Habitat tree
Turkey oak (118) Quercus cerris	37	0.11	1.7	128	42	Veteran tree

Tree	DBH (cm)	Basal area (m ²)	Volume (m ³)	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (132) Quercus cerris	36	0.1	1.5	111	4	Diversity
European hop-hornbeam (373) Ostrya carpinifolia	32	0.08	0.9	66	58	Habitat tree
European hop-hornbeam (199) Ostrya carpinifolia	26.5	0.06	0.8	61	24	Habitat tree
Italian maple (375) Acer opalus	25.5	0.05	0.6	43	28	Habitat tree
European hop-hornbeam (198) Ostrya carpinifolia	25	0.05	0.7	51	24	Habitat tree
Italian maple (63) Acer opalus	24.5	0.05	0.5	38	40	Habitat tree
European hop-hornbeam (200) Ostrya carpinifolia	24	0.05	0.7	51	24	Habitat tree
Italian maple (273) Acer opalus	23.5	0.04	0.5	36	24	Habitat tree
Italian maple (263) Acer opalus	23	0.04	0.4	31	4	Habitat tree
Italian maple (89) Acer opalus	22	0.04	0.3	23	4	Habitat tree
European hop-hornbeam (272) Ostrya carpinifolia	21	0.04	0.4	30	24	Habitat tree
Italian maple (377) Acer opalus	20	0.03	0.3	25	7	Habitat tree
Italian maple (214) Acer opalus	20	0.03	0.3	23	24	Habitat tree
Italian maple (113) Acer opalus	19.5	0.03	0.3	21	4	Habitat tree
Italian maple (376) Acer opalus	17.5	0.02	0.3	20	24	Habitat tree
European hop-hornbeam (250) Ostrya carpinifolia	12	0.01	0.1	6	24	Habitat tree
common beech (7) Fagus sylvatica	9	0.01	0.2	16	0	Habitat tree