Supplementary material

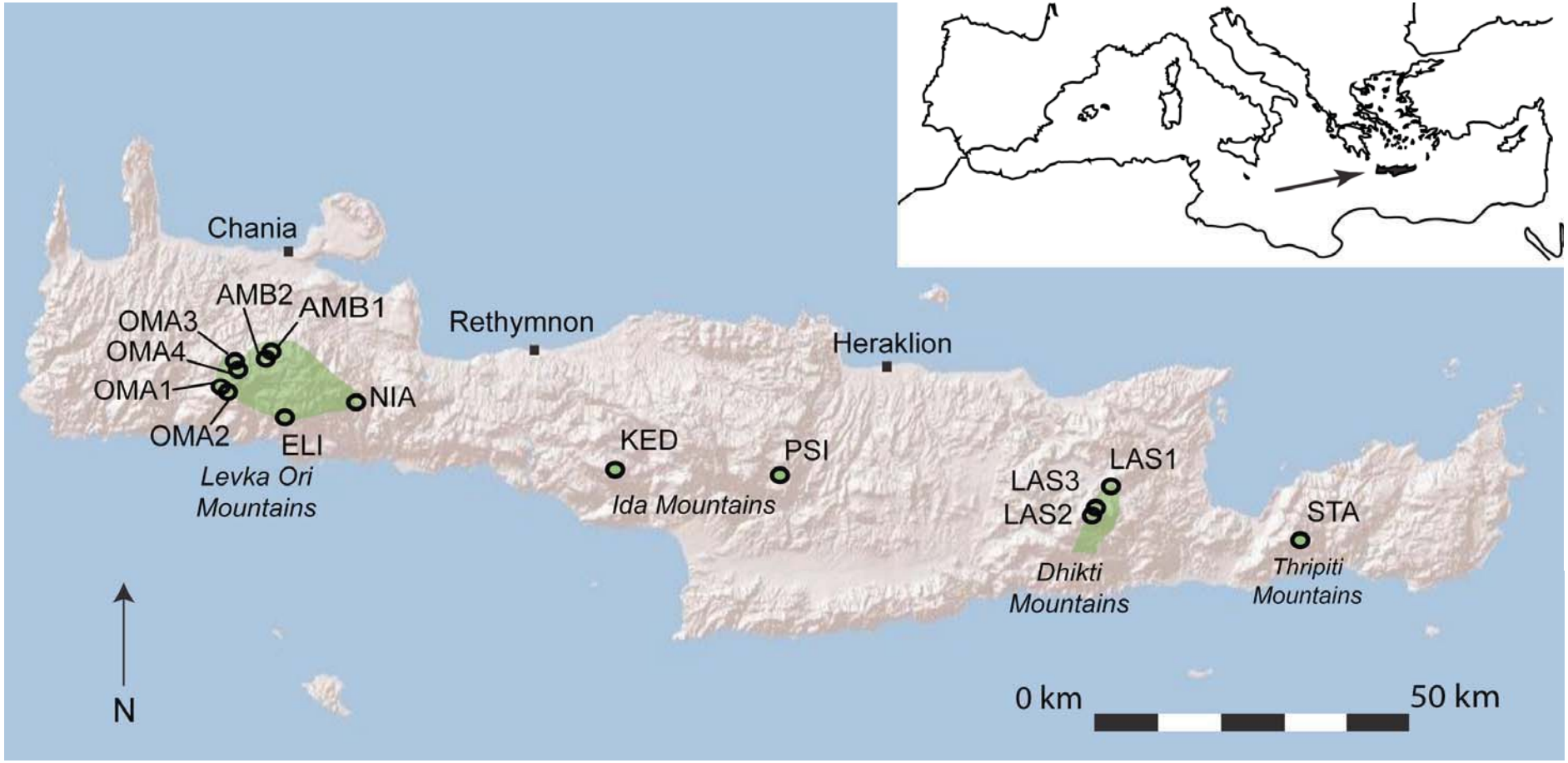

Figure S1. Study area and global distribution of *Z. abelicea* throughout the four main mountain regions of Crete: from west to east: Levka Ori (2453 m a.s.l.), Ida Mountains (2456 m a.s.l.), Dhikti Mountains (2148 m a.s.l.) and Thripiti Mountains (1476 m a.s.l.) (Jahn and Schönfelder, 1995). Dots represent sampling sites and colored zones show the species' distribution in the Levka Ori Mountains and Dhikti Mountains. For the Ida Mountains, sampling was done within the two only existing populations (KED and PSI). This was also the case in the Thripiti Mountains where the only known population (STA) was sampled.

Supplementary material

Fig. S2. *Z. abelicea* individual of the large category with a fully developed crown, not subject to browsing anymore (AMB2_L1).

Fig. S3. Shrubby, dwarfed and totally browsed *Z. abelicea* tree of the small category (KED_S1).

Fig. S4. *Z. abelicea* individual of the intermediate category. The tree is browsed at its base but the highest branches have started to escape browsing (LAS2_M1).

Table S1
Main geographical parameters of sampling sites, number of sampled trees in each habit category and observation of fruiting trees in 2010. S, M and L stand for the three tree categories, namely small, dwarfed and browsed trees, intermediate trees and large, non-browsed and normally growing trees. Only large trees have been observed and known to produce fruit.

Population ID	Site name	Mountain region	Latitude (°N)	Longitude (°E)	Altitude (m)	S	M	L	Total N	Fruiting observed
AMB1	Ambelitsias Potamos	Levka Ori	35°21'60''	23°59'10''	1 269	3	3	3	9	yes
AMB2	Ambelitsias Potamos	Levka Ori	35°21'17''	23°58'50''	1 429	2	1	3	6	yes
ELI	Eligas Gorge	Levka Ori	35°15'36''	24°00'55''	1 591	3	0	1	4	no
NIA	Niato	Levka Ori	35°17'16''	24°08'49''	1 226	4	2	0	6	no
OMA1	Omalos	Levka Ori	35°18'56''	23°54'43''	1 223	3	3	3	9	yes
OMA2	Omalos	Levka Ori	35°18'37''	23°54'11''	1 231	3	3	3	9	yes
OMA3	Omalos	Levka Ori	35°20'52''	23°54'45''	1 043	2	1	3	6	no
OMA4	Omalos	Levka Ori	35°20'44''	23°54'40''	1 050	1	1	1	3	no
KED	Mt. Kedros	Psiloritis	35°11'15''	24°37'41''	1 280	3	3	3	9	yes
PSI	Rouvras Forest	Psiloritis	35°10'45''	24°55'46''	1 335	3	3	4	10	yes
LAS1	Kefala	Dhikti	35°10'10''	25°32'16''	1 195	4	2	3	9	yes
LAS2	Mt. Dhikti	Dhikti	35°08'14''	25°30'48''	1 374	1	2	2	5	no
LAS3	Mt. Dhikti	Dhikti	35°08'17''	25°30'48''	1 373	5	0	0	5	no
STA	Afendis Kavousi	Thripiti	35°04'50''	25°53'14''	1 145	8	1	0	9	no
Total N						45	25	29	99	

Supplementary material

Table S2

Characteristics of cored trees and their estimated age (only trees which were possible to age are represented (N = 96)).

Population ID	Tree ID	Circum-ference (cm)*	Radius (cm)	Tree height (cm)	Mean ring growth rate (mm)	Estimated age**
AMB1	AMB1_S1	19	3.02	45	0.14292	212
	AMB1_S2	28	4.46	160	0.21313	209
	AMB1_S3	36	5.73	170	0.12625	454
	AMB1_M1	20	3.18	250	0.24063	132***
	AMB1_M2	28	4.46	400	0.28500	156***
	AMB1_M3	30	4.77	430	0.24104	198
	AMB1_L1	51	8.12	531	1.10625	73
	AMB1_L2	64	10.19	805	1.61750	63
	AMB1_L3	51	8.12	878	0.80083	101
AMB2	AMB2_S2	23	3.66	150	0.18417	199
	AMB2_S3	70	11.14	250	0.36875	302
	AMB2_M2	43	6.84	417	0.45042	152
	AMB2_L1	106	16.87	770	1.14250	148
	AMB2_L2	134	21.33	1014	2.07375	103
	AMB2_L3	84	13.37	600	0.67438	198
ELI	ELI_S1	45	7.16	106	0.15667	457
	ELI_S2	34	5.41	106	0.17917	302
	ELI_S3	40	6.37	122	0.19750	322
	ELI_L1	68	10.82	550	0.30000	361
NIA	NIA_S1	33	5.25	130	0.16167	325
	NIA_S2	22	3.50	65	0.16883	207
	NIA_S3	48	7.64	140	0.22694	337
	NIA_S4	21	3.34	200	0.33208	101
	NIA_M1	57	9.07	350	0.38750	234
	NIA_M2	58	9.23	350	0.27250	339
OMA1	OMA1_S1	37	5.89	55	0.27354	215
	OMA1_S2	22	3.50	140	0.32000	109
	OMA1_S3	21	3.34	180	0.46250	72
	OMA1_M1	27	4.30	437	0.69500	62
	OMA1_M2	22	3.50	370	0.32083	109
	OMA1_M3	26	4.14	360	0.53688	77
	OMA1_L1	230	36.61	1011	2.36167	155
	OMA1_L3	140	22.28	1165	1.81833	123
OMA2	OMA2_S1	60	9.55	180	0.19250	496***
	OMA2_S2	40	6.37	150	0.22500	283
	OMA2_S3	63	10.03	160	0.15500	647
	OMA2_M1	22	3.50	400	0.56625	62
	OMA2_M2	14	2.23	320	0.41375	54***
	OMA2_M3	30	4.77	360	0.29792	160
	OMA2_L1	70	11.14	695	1.84750	60
	OMA2_L2	62	9.87	782	3.49125	28
	OMA2_L3	139	22.12	1206	1.84917	120
OMA3	OMA3_S1	29	4.62	130	0.35810	129
	OMA3_S2	10	1.59	110	0.13500	118
	OMA3_M1	18	2.86	440	0.33417	86
	OMA3_L1	64	10.19	805	1.58625	64
	OMA3_L2	42	6.68	782	1.52375	44
	OMA3_L3	19	3.02	470	0.65271	46
OMA4	OMA4_S1	24	3.82	91	0.16450	232
	OMA4_M1	19	3.02	400	1.03208	29
	OMA4_L1	54	8.59	735	1.86806	46

KED	KED_S1	39	6.21	140	0.48854	127
	KED_S2	42	6.68	100	0.17000	393
	KED_S3	23	3.66	130	0.14667	250
	KED_M1	85	13.53	550	0.50167	270
	KED_M2	62	9.87	695	0.44333	223
	KED_L1	123	19.58	714	0.77167	254
	KED_L2	200	31.83	642	1.40500	227
	KED_L3	115	18.30	700	1.33958	137
PSI	PSI_S1	30	4.77	170	0.19583	244
	PSI_S2	21	3.34	60	0.17833	187
	PSI_S3	26	4.14	185	0.27500	150
	PSI_M1	36	5.73	350	0.21375	268
	PSI_M2	57	9.07	230	0.24333	373
	PSI_M3	21	3.34	330	0.40375	83
	PSI_L1	23	3.66	350	0.43708	84
	PSI_L2	73	11.62	550	0.22625	514
	PSI_L3	58	9.23	472	0.61278	151
	PSI_L4	94	14.96	630	0.75667	198
LAS1	LAS1_S1	34	5.41	100	0.15783	343
	LAS1_S2	18	2.86	130	0.26167	109
	LAS1_S3	25	3.98	200	0.32063	124
	LAS1_S4	41	6.53	130	0.24229	269
	LAS1_M1	19	3.02	340	0.36938	82
	LAS1_M2	21	3.34	320	0.44500	75
	LAS1_L1	29	4.62	550	0.81375	57
	LAS1_L2	65	10.35	576	1.14250	91
	LAS1_L3	42	6.68	630	1.10688	60
LAS2	LAS2_M1	15	2.39	220	0.16208	147
	LAS2_M2	19	3.02	300	0.22917	132
	LAS2_L1	16	2.55	380	0.94042	27
	LAS2_L2	16	2.55	340	0.32463	78
LAS3	LAS3_S1	13	2.07	80	0.28500	73
	LAS3_S2	10	1.59	30	0.26188	61
	LAS3_S3	12	1.91	80	0.32000	60
	LAS3_S4	19	3.02	120	0.24800	122
	LAS3_S5	17	2.71	130	0.38000	71
STA	STA_S1	20	3.18	180	0.35083	91
	STA_S2	26	4.14	210	0.15000	276
	STA_S3	41	6.53	100	0.14667	445
	STA_S4	27	4.30	130	0.12833	335
	STA_S5	27	4.30	140	0.15300	281
	STA_S6	20	3.18	145	0.24000	133
	STA_S7	32	5.09	135	0.21688	235
	STA_S8	13	2.07	60	0.41750	50
	STA_M1	13	2.07	240	0.38750	53

* circumference measured at trunk base for small (S) trees and at breast height for intermediate (M) and large (L) trees
** estimated age at height of circumference measurement
*** visible multiple piths