Table S1. Topographic units obtained by overlapping digital layers of aspect, slope and elevation. Note that only 20 of the 24 combinations of categorical factors were suitable for further field sampling (see also Figure 1).

Topographic unit	Aspect[1]	Slope (%)	Elevation (m)
1	E	30-60	1700-2000
2	N	0-30	
3	S	0-30	
4		30-60	
5		> 60	
6	W	0-30	
7		30-60	
8		> 60	
9	E	0-30	1500-1700
10		30-60	
11		> 60	
12	N	0-30	
13		30-60	
14		> 60	
15	S	0-30	
16		30-60	
17		> 60	
18	W	0-30	
19		30-60	
20		> 60	

[1]N, north; S, south; W, west; and E, east

Table S2. Mean density and basal area of alive and dead trees (total and oaks)

	Mean density (individuals/ha)	Mean basal area (m^2/ha)	Mean DBH (cm)	Mean canopy cover (%)
Total stand alive trees	189.67	11.51	24.86	28.33
Oak alive trees	179.83	10.75	24.89	27.4
Total stand dead trees	35.33	1.91	24.58	4.19
Oak dead trees	34.50	1.82	24.57	4.07

Table S3. Mean total density and mortality of trees shrubs species

Species	Mean total density (trees/ha)	Mean mortality (trees/ha)	Mortality (%)
Quercus persica	214.33	34.50	16.10
Pistacia atlantica	4.00	0.33	8.25
Acer cineracens	0.33	0.16	48.48
Crataegus pontica	5.33	0.16	3.00
Amigdalus orientalis	0.83	0.16	19.28
Cerasus microcarpa	0.17	0.00	0.00

Table S4. Analysis of variance for tree mortality among topographic units. The degrees of freedom (df), mean sum of squares (MS), *F* statistic and *p* values are also showed.

Mortality variables		df	MS	*F*	*p*
Dead trees density (trees/ha)	Between groups	19	2587.368	6.336	0.000
	Within group	40	408.333		
	total	59			
Dead trees (%)	Between groups	19	288.891	4.123	0.000
	Within group	40	70.069		
	total	59			

Table S5. Analysis of variance for tree competition index (CI) among topographic units. The mean sum of squares (MS), degrees of freedom (df), *F* statistic and *p* values are also showed.

CI	MS	df	MS	*F*	*p*
Between groups	47.876	19	2.520	6.598	0.000
Within groups	334.936	877	0.382		
Total	382.812	896			

Table S6. Paired comparison of tree competition index (CI) for alive and dead focal trees. The *F* statistic, t-test for equality of means (t), degrees of freedom (df), and *p* values are also showed.

	Levene's test for equality of variances		t-test for equality of means		
	F	*p*	t	df	*p* (2-tailed)
Equal variances assumed	70.992	0.000	-9.452	895	0.000
Equal variances not assumed			-9.219	632.104	0.000

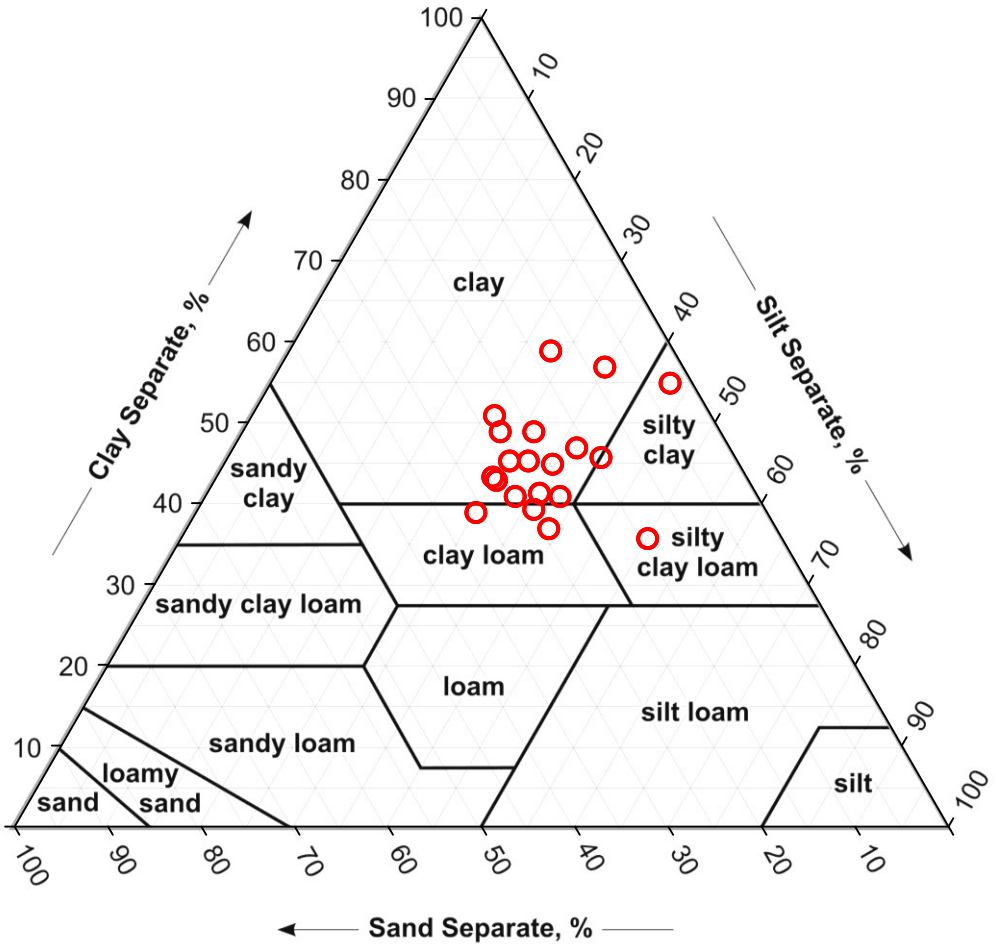

Figure S1. Soil samples position (red symbols) within the soil textural triangle obtained in the topographic units; n=20 soil samples.

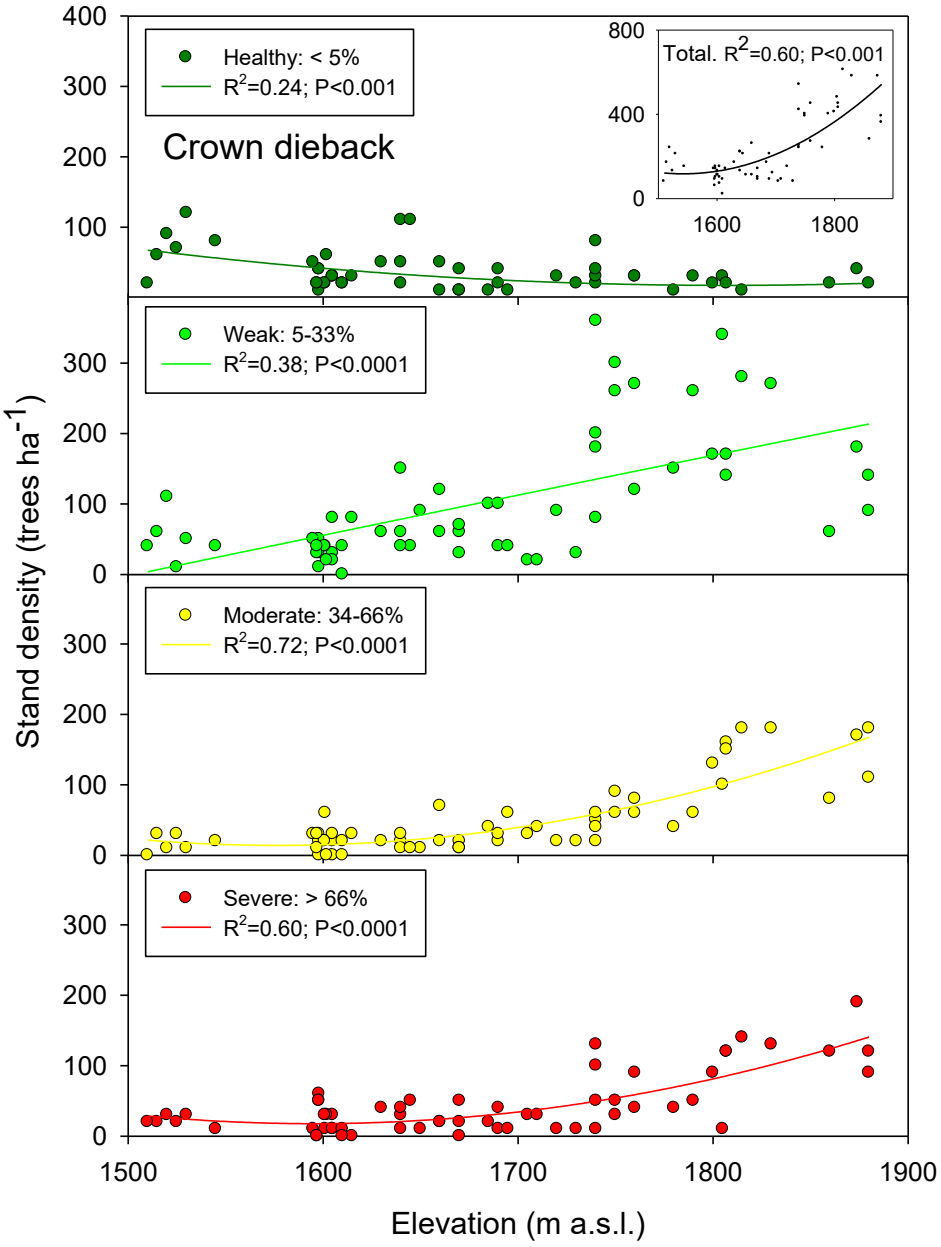

Figure S2. Relationships obtained among different classes of crown dieback and elevation. Inset shows the total stand density. The lines and the insets show the results of polynomial regressions; n=60 plots.