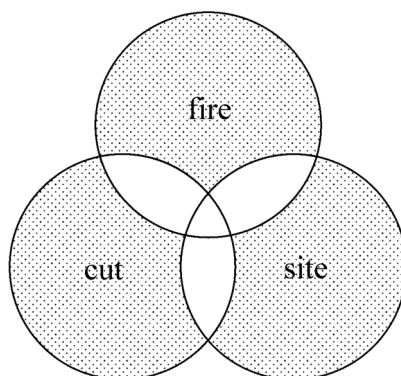


Supplementary material

Appendix 1. Code names and descriptions of the environmental factors recorded within the 10 × 10 m quadrats on each site. Secondary fire factors (environmental factors directly related to fire and cutting), such as vegetation and litter cover, were also recorded but not shown here (Moretti et al. 2002).

Factor groups	Code	Description	Unit	Type
Fire factors	Nfire	Number of wildfires in the previous 30 yr	number	Quantitative
	Tfire	Time elapsed since the last fire	y	Quantitative
Cutting factors	Cut	Clear cut after the fire	[0,1]	Binary
	Tcut	Time elapsed since the last clear cut	y	Quantitative
	CoordX	Longitudinal kilometric coordinate	km	Quantitative
	CoordY	Latitudinal kilometric coordinate	km	Quantitative
Site factors (environmental factors not directly related to fire or clear-cutting)	Alt	Altitude	m a.s.l.	Quantitative
	Slope	Average slope	%	Quantitative
	Aspect	Northness (cosine of aspect in radians)	[-1:1]	Quantitative
	Soil	Soil granularity: fine (1), medium (2), coarse (3)	classes	Ordinal

Appendix 2. Partitioning of the variance attributed to the three factor groups, i.e. fire, cutting and site factors (circles). The interception area between the circles represents the shared variance explained by two or three factor groups. The stippled areas are the variance explained by each single factor group after removing the influence of the others (i.e. fire = fire factors as explanatory variables, and cutting and site factors as covariables; cut = cutting factors as explanatory variables, and fire and site factors as covariables; site = site factors as explanatory variables and fire and cutting factors as covariables).



Appendix 3. List of the taxonomic orders and groups considered in this paper, the number of species selected with at least five individuals (animals) or more than one record (plants) and the number of individuals in those species (23 sites, 69 trap stations). Plant species in the tree, shrub and herb strata are recorded separately here as plant types.

Taxa	Overall species		Data selected for the analyses					
			Total selected		Mean per site		Mean per station	
	No. spp.	No. ind.	No. spp.	No. ind.	No. spp.	No. ind.	No. spp.	No. ind.
Isopoda	12	1117	10	1114	4	48	3	16
Araneae	132	8843	71	8728	32	379	22	126
Coleoptera	412	34271	208	33870	90	1473	55	491
Hymenoptera Apoidea	155	46990	91	46872	51	2038	37	679
Hymenoptera Formicidae	44	21159	31	21135	16	919	11	306
Diptera Syrphidae	75	2784	37	2704	18	118	10	41
Neuroptera	45	2618	23	2578	13	112	9	37
Animals	875	117782	471	117001	224	5087	147	1696
Plant types	120	–	102	–	23	–	20	–

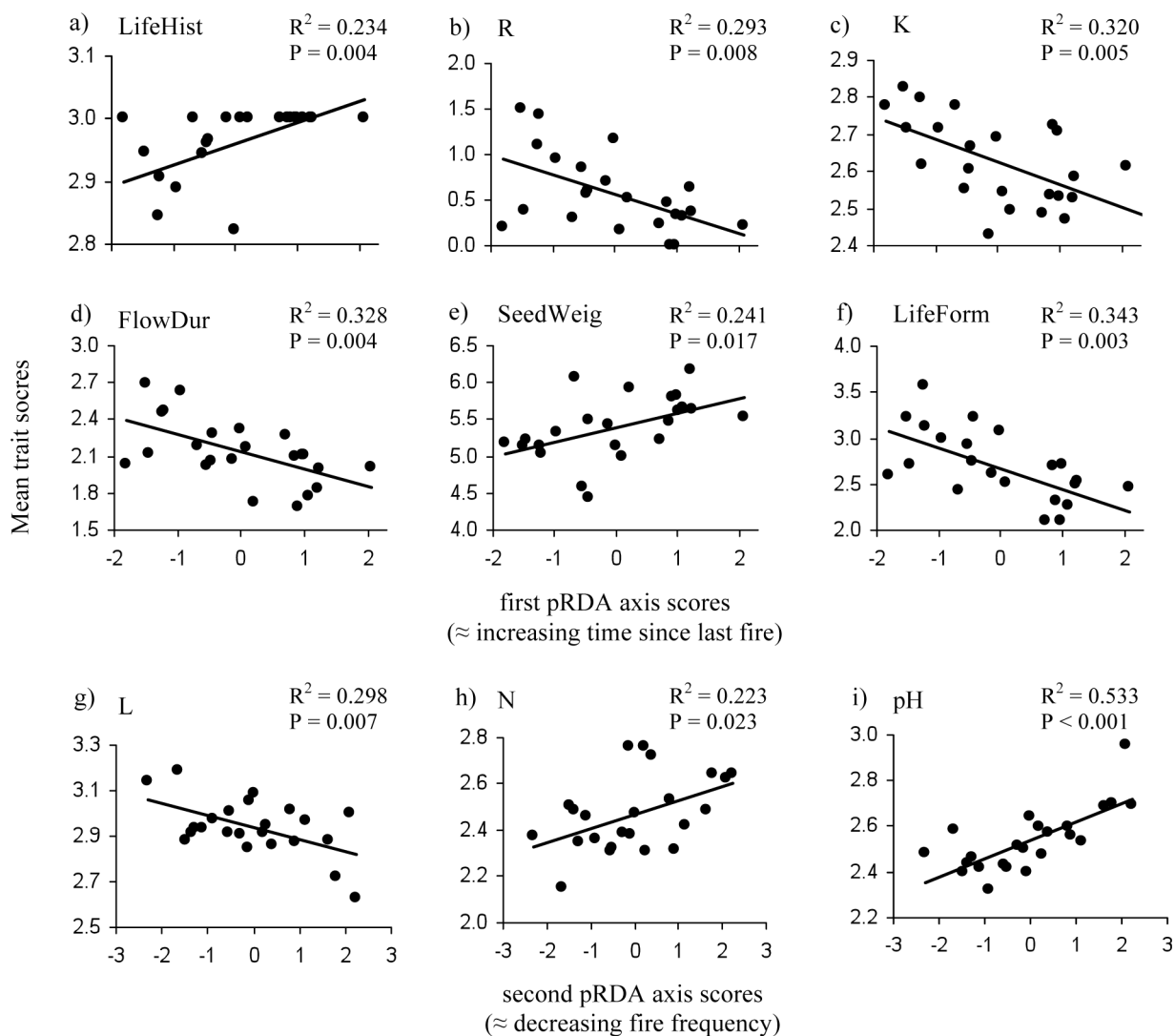
Appendix 4. Results of the DCA of plant and animal “species × site” matrices for the 69 trap stations in the environmental space of fire, cutting and site factors. Coeff = correlation coefficient between the factors and the first two DCA axes. Bold type values indicate strong correlations. The factors are defined in Table 2. % Variance explained = variance of the trait-environment relationship in %.

		Plants		Animals	
		axis 1	axis 2	axis 1	axis 2
Factor groups	DCA axes				
	Eigenvalues	0.30	0.23	0.17	0.12
	% Variance explained	9.1	7.1	9.3	6.6
Factors		Coeff 1	Coeff 2	Coeff 1	Coeff 2
Fire factors	Nfire	0.457	0.445	0.461	-0.159
	Tfire	-0.605	-0.244	-0.766	-0.138
Cutting factors	Cut	0.299	0.165	0.566	-0.536
	Tcut	-0.304	-0.121	-0.564	-0.557
Site factors	CoordX	-0.212	0.017	-0.181	-0.185
	CoordY	-0.124	0.162	-0.054	-0.488
	Alt	0.428	0.418	0.502	0.375
	Asp	-0.245	-0.059	-0.161	0.551
	Slope	-0.308	-0.041	-0.070	-0.071
	Soil	-0.002	0.259	-0.039	0.118

b) Animals

Explanatory factors Covariables: pRDA axes	fire cut; site			cut fire; site			site fire; cut								
	Axis 1			Axis 2			Axis 1			Axis 2					
	coeff	R ²	p	coeff	R ²	p	coeff	R ²	p	coeff	R ²	p			
Traits															
GrCarn	0.032	0.716	< 0.001	n.s.	n.s.	0.022	0.282	0.009	n.s.	0.023	0.246	0.016	n.s.		
Habitat	0.041	0.458	0.028	n.s.	n.s.	0.036	0.187	0.039	n.s.				n.s.		
Detritiv	0.012	0.618	0.002	n.s.	n.s.			n.s.	n.s.	0.009	0.227	0.022	n.s.		
Dispers	0.012	0.723	< 0.001	n.s.	n.s.	-0.075	0.204	0.030	n.s.	-0.091	0.258	0.013	n.s.		
Lifeform	-0.128	0.722	< 0.001	n.s.	n.s.	-0.039	0.193	0.035	n.s.	-0.056	0.338	0.022	n.s.		
Pollinat	-0.036	0.626	0.001	n.s.	n.s.	-0.023	0.433	0.039	n.s.				n.s.		
T	-0.028	0.436	0.038	n.s.	n.s.	-0.033	0.297	0.007	n.s.				n.s.		
%Bodysize				n.s.	0.852	0.595	0.003	n.s.	n.s.				n.s.		
SaprXyl				n.s.	-0.020	0.754	< 0.001	n.s.	n.s.				-0.019	0.683	< 0.001
Herbiv				n.s.				0.011	n.s.	-0.007	0.268	0.011	0.006	0.493	0.017
HabSpec				n.s.				0.004	n.s.	-0.020	0.336	0.004			n.s.
FlyCarn				n.s.					n.s.	-0.015	0.649	< 0.001			n.s.
Bodysize				n.s.					n.s.	-0.244	0.376	0.002			n.s.

Appendix 6a–i. Regression of selected mean plant traits scores for each site against the first (a–f) and second (g–i) pRDA axis scores where fire factors were explanatory variables and cutting + site factors were covariables; LifeHist = life history, R = ruderal species, K = continentality index, FlowDur = flowering start (in months), SeedWeig = seed weight, LifeForm = life form, L = Light index, N = nitrogen index, pH = acidity index (see Table 3a for further details); \approx indicates the interpretation of the first and second axes.



Appendix 7a–i. Regression of some mean animal traits scores for each site against the first (a–f) and second (g–i) pRDA axis scores where fire factors were explanatory variables and cutting + site factors were covariables; Detritiv = detritivores, GrCarn = ground carnivores, Habitat = habitat requirement, Dispers = dispersal ability, Pollinat = pollinators, T = temperature demanding, SaprXyl = Mycetosaproxyliphagous, %Bodysize = relative body length of each order, HabSpec = habitat specificity (see Table 3b for further details); ≈ indicates the interpretation of the first and second axes.

