Supplementary data: Table S1 of the correlation measured with the Spearman method between all the variable measures in the 3 compartments (soil structure, aboveground vegetation and soil fauna). The cells highlighted in fluorescent yellow correspond to the main observed correlations usually with an r^2 greater than 0.4 (except for carbon/QBS correlation)

	Vegetation cover	Dry biomass graminoïds	Dry biomass leguminous	Dry biomass other	Total dry biomass	Vegetation species richness	Vegetation species diversity	Vegetation equitability	QBS	Soil fauna classes richness	Soil fauna diversity	Soil fauna equitability	Epiedaphic collembola density	Hemiedaphic collembola density	Euedaphic collembola density	Total collembola density	Total soil fauna density	Surface Compaction	Bulk density	%nitrogen	%Carbon
Vegetation cover	1	0,21736865	0,43232627	0,19098989	0,54238051	-0,05737655	-0,40699303	-0,52659914	0,25391904	0,16446453	-0,01079777	-0,12002141	0,04847309	-0,01412288	0,1212286	0,00623548	0,08724635	-0,2224354	0,14496724	0,27799533	0,12915799
Dry biomass graminoïds		1	0,06543497	-0,1322793	0,35026954	0,07713776	0,13163976	0,1162433	0,2376546	**0,41150333**	0,31793697	0,23017713	0,15587479	-0,20211745	-0,14929537	-0,20997881	0,2475934	-0,31222334	0,36265646	0,00254264	-0,04618939
Dry biomass leguminous			1	0,23314109	0,91692308	-0,09926764	-0,32153846	-0,35846154	-0,11950687	0,16637611	0,04923077	0,02153846	-0,29394334	-0,07386036	0,17932576	-0,10510111	-0,258561	-0,06616657	0,0650125	0,03641649	-0,05615385
Dry biomass other				1	0,29441288	-0,09750891	-0,00077071	-0,00616571	0,02008498	-0,08751592	-0,18227394	-0,24238966	0,01368906	**0,44999104**	0,17095909	**0,41330781**	0,22783373	0,1379844	0,12815591	0,25243725	0,21580002
Total dry biomass					1	-0,0848641	-0,23769231	-0,27692308	-0,0381651	0,24401829	0,08307692	0,03230769	-0,21782256	-0,10963647	0,09275471	-0,14205974	-0,09811467	-0,11886902	0,22581266	0,04107442	-0,08307692
Vegetation species richness						1	0,42276336	0,1440354	0,30668646	0,20528277	0,08681052	-0,07474269	0,02390369	0,07008475	0,15901062	0,10501329	-0,06250427	-0,00272552	-0,29163045	0,3662289	**0,55356308**
Vegetation species diversity							1	0,93230769	0,17270671	0,19054026	0,31538462	0,24692308	-0,04996646	-0,15772264	-0,11439747	-0,12781527	-0,03963063	-0,04154645	0,11155992	0,10162742	0,16538462
Vegetation equitability								1	0,04895927	0,06060844	0,28	0,28846154	-0,04137848	-0,14348914	-0,24232167	-0,14667957	-0,02539438	-0,06578188	0,1988844	-0,04954337	-0,04307692
QBS									1	0,4842036	0,4148045	0,22166597	0,11757572	0,06188562	0,33352808	0,05132168	0,01523335	0,07480256	-0,08791229	**0,40087242**	**0,38859009**
Soil fauna classes richness										1	0,63737895	0,28680072	0,34596689	-0,20107647	-0,1134448	-0,22224668	0,02001244	-0,20741583	0,01267871	-0,05909544	-0,04555536
Soil fauna diversity											1	0,89692308	0,0105398	-0,41046356	-0,35903801	-0,48123218	-0,32358602	-0,20080785	0,08232353	0,01100964	0,01307692
Soil fauna equitability												1	-0,17215008	-0,49432584	-0,38647794	-0,5643891	-0,41977687	-0,141181	0,13810348	-0,04530889	-0,06692308
Epiedaphic collembola density													1	0,28892419	-0,01922042	0,32939289	0,5076672	-0,25261345	-0,18252981	-0,37583869	-0,1561452
Hemiedaphic collembola density														1	0,38732539	0,97227599	0,67038677	0,00307811	-0,19776837	0,27974094	0,28851703
Euedaphic collembola density															1	0,50754732	0,28455723	0,36896415	-0,26304883	0,24891645	0,30724996
Total collembola density																1	0,71923756	0,05929921	-0,25606477	0,24562418	0,27141495
Total soil fauna density																	1	-0,18780066	0,04464114	-0,01969789	-0,05848404
Surface Compaction																		1	-0,26548673	0,20541159	0,20157723
Bulk density																			1	-0,17809397	-0,19696096
%nitrogen																				1	0,85748139
%Carbon																					1