

**Table S2** Analytic table of the grassland plant community: communities dominated by *Malva sylvestris* and *Hordeum murinum* (Cluster E; n. 1-5) dominated by *Dasypyrum villosum* and *Avena barbata* (Cluster D; n. 6-10), dominated by *Asphodelus ramosus* and therophytic grasslands with high cover of *Teucrium capitatum* (Cluster B; n. 12-15, 22-26).

ID PLOT	1	2	3	4	5	6	7	8	9	10	12	13	14	15	22	23	24	25	26
Aspect (°)	S	S	S	-	S	-	-	N	S	S	-	SW	SW	-	-	-	-	NW	-
Slope (°)	5	5	8	0	5	0	0	15	7	5	0	5	5	0	0	0	0	18	0
Total vegetation cover (%)	100	95	98	100	100	100	100	100	100	100	80	80	80	95	100	90	85	95	95
Species richness	40	31	28	28	26	31	32	28	40	35	57	45	62	57	42	53	52	44	56
<b><i>Hordeetum leporini</i> Br.-Bl. (1931) 1936 <i>malvetosum sylvestris</i> Braun-Blanquet et al. 1952</b>																			
<i>Hordeum murinum</i> subsp. leporinum	4	1	3	5	4														
<i>Malva sylvestris</i>	5	5	5	5	5		1	1	+	+									
<i>Echium plantagineum</i>			+			+	+		+	1			+		+				
<i>Crepis bursifolia</i>	+		+					+											
<b><i>Hordeion leporini</i> Braun-Blanquet (1931) 1947</b>																			
<i>Erodium ciconium</i>	2			1	1	1	+	1	1	1									
<i>Capsella bursa-pastoris</i>	+	+	+	+			+									+			
<i>Anthemis arvensis</i>	+	+	+	+		+	+			+	+	+	+	1	+	+	1	+	+
<i>Medicago polymorpha</i>		+	+	+	+	+		+	+	1									
<i>Plantago lagopus</i>	2	+	2	+	+						1	+	1			1		1	+
<i>Diplotaxis tenuifolia</i>					+	2		+											
<i>Geranium molle</i>	1	+	+		+	2	2	2	1	+					+				
<i>Veronica polita</i>		+							+		+	+	+		+	+			
<i>Galactites tomentosus</i>					+														
<b><i>Vulpio ligusticae-Dasypyretum villosi</i> Fanelli 1998 and <i>Securigero securidacae-Dasypyrrion villosi</i> Cano-Ortiz, Biondi et Cano in Cano-Ortiz et al. ex Di Pietro in Di Pietro et al. 2015</b>																			
<i>Dasypyrum villosum</i>						5	5	5	5	5					+		+		+
<i>Avena barbata</i>	3	+	1	+	+	1	1	3	5	3		+		+	+	+	+	+	1
<i>Reichardia picroides</i>	+			+			+	+	+	+	1	+	+	+	+	+	+	+	+
<i>Avena sterilis</i>						+		1	1	3					+				
<i>Foeniculum vulgare</i>	+	+						+							+				
<i>Lotus ornithopodioides</i>						+	+		+			+		+	+	+	+	+	+
<i>Festuca ligustica</i>	+	+							+			+	+	+					
<b><i>Brometalia rubenti-tectorum</i> (Rivas Godayet Rivas-Mart. 1973) Rivas-Mart. et Izco 1977 and <i>Chenopodietea</i> Br.-Bl. in Br.-Bl. et al. 1952</b>																			
<i>Crepis sancta</i>	+	+	+	+	+	+	+	+	+	+			+			1			
<i>Bromus madritensis</i>	+					+	+	+									+		
<i>Convolvulus arvensis</i>	2	+				+	+		+	+									
<i>Reseda lutea</i>				+															
<i>Papaver rhoeas</i>							+												
<i>Poa annua</i>	+	1	+	+															
<i>Scandix pecten-veneris</i>			+																
<i>Senecio vulgaris</i>				+	+														
<i>Tordylium apulum</i>	+		+			+	+				+		+		+	+	+	+	
<i>Raphanus raphanistrum</i>									+	1									
<i>Vicia sativa</i>						+	3		1	1									
<i>Sonchus oleraceus</i>						+		+							+				
<i>Carduus pycnocephalus</i>											+								

<i>Onosma echiioides</i>										1		1						+		2
<i>Anthyllis vulneraria</i> L. subsp. <i>rubriflora</i>											1		+		+			1		
<i>Teucrium capitatum</i>										1	4		1		2			+		2
<i>Satureja montana</i>															2					+
<i>Helianthemum apenninum</i>										+			+					+		+
<i>Ophrys bombyliflora</i>										+	+		+		+			+		+
<i>Ophrys tarquinia</i>															+					
<i>Centaurea aspera</i>	+		+			+		+		+								+		2
<i>Serapias parviflora</i>										+			+		+			+		+
<i>Convolvulus cantabrica</i>												+		+						
<i>Petrorhagia saxifraga</i>											+									
<i>Thesium humifusum</i>																				
<i>Sanguisorba minor</i>										2	2		3		1			1	2	+
<i>Asperula aristata</i>										2	1		1		+			+	+	+

<i>Brachypodium rupestre</i>				3	1
<i>Bromus erectus</i>	3	+	+	2	+
<i>Galium lucidum</i>				+	+

<i>Ajuga iva</i>			+	+		+		+		+
<i>Allium roseum</i>										+
<i>Anisantha rubens</i>										+
<i>Bellardia trixago</i>					+					
<i>Blackstonia perfoliata</i>				+	+	+		+		+
<i>Carduus nutans</i>				+	+	+		+		
<i>Centaurium erythraea</i>			+	+	+	+				
<i>Clinopodium nepeta</i>								+		1
<i>Crupina vulgaris</i>								+		
<i>Filago germanica</i>			+			+				+
<i>Galium murale</i>								+		
<i>Hedypnois rhagadioloides</i>									+	
<i>Lysimachia arvensis</i>			+	+	+	+		+	+	+
<i>Phleum hirsutum</i>								+		
<i>Poa trivialis</i>							+			
<i>Polygala monspeliaca</i>			+			+			+	
<i>Silene pendula</i>						+				
<i>Sinapis alba</i>								+		
<i>Stachys ocymastrum</i>								+	+	
<i>Trifolium resupinatum</i>					+			+	+	+
<i>Rhamnus alaternus</i>								+		
<i>Phillyrea latifolia</i>					+					
<i>Clematis flammula</i>			1	+	+					
<i>Hypericum perforatum</i>										+
<i>Spartium junceum</i>						+				
<i>Lathyrus cicera</i>								+		
<i>Medicago orbicularis</i>								+		
<i>Borago officinalis</i>							+			
<i>Bellis perennis</i>		+			+					+