

Article

Plant Diversity in Sardinian Mountain Rangelands: Analysis of Its Relationships with Grazing, Land Management, and Pastoral Value

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Table 1. The main iso-bioclimatic types, found in the 63 plots of the study area, extracted from the bioclimate map of Sardinia. The code defines the categories in the original vector map of the bioclimates in Sardinia (Italy) [1].

Code	Iso-bioclimatic type
10	Upper Thermomediterranean, Upper Dry, Euoceanic Weak
20	Lower Mesomediterranean, Lower Subhumid, Euoceanic Weak
28	Upper Mesomediterranean, Upper Subhumid, Euoceanic Weak
30	Upper Mesomediterranean, Lower Humid, Euoceanic Weak
31	Upper Mesomediterranean, Lower Humid, Semicontinental Weak
35	Lower Supramediterranean, Lower Humid, Semicontinental Weak
37	Upper Mesotemperate (Submediterranean), Lower Humid, Semicontinental Weak
38	Lower Supratemperate (Submediterranean), Lower Humid, Semicontinental Weak

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Table S2. Predictors used in the Generalised linear models (GLMs), along with their detailed description.

Predictors	Detailed description of the predictors (explanatory variables)
Abiotic	pH OC (%): organic carbon. P₂O₅ (ppm): phosphoric anhydride. N (g·kg⁻¹): nitrogen. Altitude (m a.s.l.): thematic layer produced by GIS analysis from a DEM with 10 × 10 m geometric resolution. Slope: degrees, thematic layer produced by GIS analysis from a DEM with 10 × 10 m geometric resolution. Geological substrate: alluvial, basalt, granite, limestone and schist Fire strength: visually assessed. Classified as absent or very low, low, medium, and high. Iso-bioclimatic types: extracted from the Bioclimate map of Sardinia (Italy)
Biotic	SLU (LU·km⁻²): spatialized livestock unit pressure. Interpolated maps by livestock unit (LU) and kriging. Trees/shrubs: presence/absence of tree and shrub vegetation in the proximity of plot.
Management	Land managed: (1) by the local Council authority; (2) by FoReSTAS (The Sardinian Forest Agency). SAC: Special Areas of Conservation (https://www.regione.sardegna.it).

Table S3. Floristic list and plant traits.

Species	Family	Endemic	Endemism	Life forms	Life span	Thorns	Pollination
<i>Achillea ligustica</i> All.	Asteraceae	N	—	H	P	N	E
<i>Aegilops geniculata</i> Roth	Poaceae	N	—	T	A	N	A
<i>Aira elegantissima</i> Schur.	Poaceae	N	—	T	A	N	A
<i>Allium roseum</i> L.	Amaryllidaceae	N	—	G	P	N	E
<i>Allium subhirsutum</i> L.	Amaryllidaceae	N	—	G	P	N	E
<i>Allium vineale</i> L.	Amaryllidaceae	N	—	G	P	N	E
<i>Anacamptis papilionacea</i> (L.) R.M.Bateman, Pridgeon & M.W.Chase	Orchidaceae	N	—	G	P	N	E
<i>Anagallis arvensis</i> L.	Primulaceae	N	—	T	A	N	E
<i>Anthemis arvensis</i> L.	Asteraceae	N	—	T	A	N	E
<i>Anthoxanthum odoratum</i> L.	Poaceae	N	—	T	A	N	A
<i>Anthyllis vulneraria</i> subsp. <i>rubriflora</i> (DC.) Arcangeli	Fabaceae	N	—	H	P	N	E
<i>Arabis collina</i> Ten.	Brassicaceae	N	—	H	P	N	E
<i>Arabis verna</i> (L.) R.Br.	Brassicaceae	N	—	T	A	N	E
<i>Arbutus unedo</i> L.	Ericaceae	N	—	P	P	N	E
<i>Aristolochia rotunda</i> subsp. <i>insularis</i> (E.Nardi & Arrigoni) Gamisans	Aristolochiaceae	N	—	G	P	N	E
<i>Armeria sardoa</i> Sprengel	Plumbaginaceae	Y	Sardinian	Ch	P	N	E
<i>Armeria sardoa</i> subsp. <i>genargentea</i> Arrigoni	Plumbaginaceae	Y	Sardinian	Ch	P	N	E

<i>Asphodelus ramosus</i> L.	Asphodelaceae	N	—	G	P	N	E
<i>Asterolinon linum-stellatum</i> (L.) Duby	Primulaceae	N	—	T	A	N	E
<i>Astragalus genargenteus</i> Moris	Fabaceae	Y	Sardinian	Ch	P	Y	E
<i>Astragalus hamosus</i> L.	Fabaceae	N	—	T	A	N	E
<i>Avena barbata</i> Pott ex Link	Poaceae	N	—	T	A	N	A
<i>Bellardia trixago</i> (L.) All.	Orobanchaceae	N	—	T	A	N	E
<i>Bellis annua</i> L.	Asteraceae	N	—	T	A	N	E
<i>Bellis perennis</i> L.	Asteraceae	N	—	H	P	N	E
				Sardinian-Mediterranean is-			
<i>Bellium bellidioides</i> L.	Asteraceae	Y	lands	H	P	N	E
<i>Biserrula pulegius</i> L.	Fabaceae	N	—	T	A	N	E
<i>Brachypodium distachyon</i> (L.) P. Beauv	Poaceae	N	—	T	A	N	A
<i>Brachypodium retusum</i> (Pers.)P. Beauv	Poaceae	N	—	H	P	N	A
<i>Brachypodium rupestre</i> (Host) Roem. & Schult.	Poaceae	N	—	H	P	N	A
<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv.	Poaceae	N	—	H	P	N	A
<i>Briza maxima</i> L.	Poaceae	N	—	T	A	N	A
<i>Briza minor</i> L.	Poaceae	N	—	T	A	N	A
<i>Bromus hordaceus</i> L.	Poaceae	N	—	T	A	N	A
<i>Bromus rubens</i> L.	Poaceae	N	—	T	A	N	A
<i>Bromus sterilis</i> L.	Poaceae	N	—	T	A	N	A
<i>Bunias erucago</i> L.	Brassicaceae	N	—	T	A	N	E
<i>Bunium alpinum</i> subsp. <i>corydalinum</i> (DC.)	Apiaceae	N	—	G	P	N	E
<i>Bupleurum baldense</i> Turra	Apiaceae	N	—	T	A	N	E
<i>Calendula arvensis</i> (Vaill.) L.	Asteraceae	N	—	T	A	N	E
<i>Capsella bursa-pastoris</i> (L.) Medic.	Brassicaceae	N	—	H	B	N	E
<i>Cardamine hirsuta</i> L.	Brassicaceae	N	—	T	A	N	E
<i>Carduus pycnocephalus</i> L.	Asteraceae	N	—	H	B	Y	E
<i>Carex caryophyllea</i> Latourr.	Cyperaceae	N	—	H	P	N	A
<i>Carex distachya</i> Desf.	Cyperaceae	N	—	H	P	N	A
<i>Carex divulsa</i> Stokes	Cyperaceae	N	—	H	P	N	A
<i>Carlina corymbosa</i> L.	Asteraceae	N	—	H	B	Y	E
<i>Carlina lanata</i> L.	Asteraceae	N	—	T	A	Y	E
<i>Castanea sativa</i> Miller	Fagaceae	N	—	P	P	N	E
<i>Catapodium rigidum</i> (L.) C.E. Hubbard	Poaceae	N	—	T	A	N	A
<i>Centaurea calcitrapa</i> L.	Asteraceae	N	—	H	B	Y	E
<i>Centaurium erythraea</i> Rafn	Gentianaceae	N	—	H	B	N	E
<i>Centaurium maritimum</i> (L.) Fritsch	Gentianaceae	N	—	T	A	N	E
<i>Cerastium boissierianum</i> Greuter & Burdet	Caryophyllaceae	N	—	Ch	P	N	E
<i>Cerastium glomeratum</i> Thuill.	Caryophyllaceae	N	—	T	A	N	E
<i>Chamaemelum fuscum</i> (Brot.) Vasc.	Asteraceae	N	—	T	A	N	E

<i>Chrysanthemum coronarium</i> L.	Asteraceae	N	—	T	A	N	E
<i>Chrysanthemum segetum</i> L.	Asteraceae	N	—	T	A	N	E
<i>Cistus creticus</i> L.	Cistaceae	N	—	NP	P	N	E
<i>Cistus monspeliensis</i> L.	Cistaceae	N	—	NP	P	N	E
<i>Cistus salviifolius</i> L.	Cistaceae	N	—	NP	P	N	E
	Convolvulaceae		—				
<i>Convolvulus arvensis</i> L.	lanceae	N	—	G	P	N	E
<i>Crataegus monogyna</i> Jacq.	Rosaceae	N	—	P	P	Y	E
<i>Crepis foetida</i> L.	Asteraceae	N	—	T	A	N	E
<i>Crepis leontodontoides</i> All.	Asteraceae	N	—	H	P	N	E
<i>Crucianella angustifolia</i> L.	Rubiaceae	N	—	T	A	N	E
<i>Cruciata laevipes</i> Opiz	Rubiaceae	N	—	H	P	N	E
<i>Crupina crupinastrum</i> (Moris) Vis.	Asteraceae	N	—	T	A	N	E
<i>Cynodon dactylon</i> (L.)	Poaceae	N	—	G	P	N	A
<i>Cynosurus echinatus</i> L.	Poaceae	N	—	T	A	N	A
<i>Dactylis glomerata</i> L.	Poaceae	N	—	H	P	N	A
	Thymelaeaceae		—				
<i>Daphne gnidium</i> L.	aceae	N	—	NP	P	N	E
<i>Daucus carota</i> L.	Apiaceae	N	—	H	B	N	E
<i>Dittrichia viscosa</i> (L.) W.Greuter	Asteraceae	N	—	H	P	N	E
<i>Epilobium lanceolatum</i> Seb. & Mauri	Onagraceae	N	—	H	P	N	E
<i>Erica arborea</i> L.	Ericaceae	N	—	P	P	N	E
<i>Erica scoparia</i> L.	Ericaceae	N	—	NP	P	N	E
<i>Erodium cicutarium</i> (L.) L'Hér in Aiton	Geraniaceae	N	—	T	A	N	E
<i>Erophila verna</i> (L.) Chevall.	Brassicaceae	N	—	T	A	N	E
<i>Eryngium campestre</i> L.	Apiaceae	N	—	H	P	Y	E
<i>Eryngium tricuspdatum</i> L.	Apiaceae	N	—	H	P	Y	E
<i>Euphorbia characias</i> L.	Euphorbiaceae	N	—	NP	P	N	E
<i>Euphorbia gayi</i> Salis	Euphorbiaceae	N	—	G	P	N	E
<i>Evax pygmaea</i> (L.) Brot	Asteraceae	N	—	T	A	N	E
<i>Ferula communis</i> L.	Apiaceae	N	—	H	P	N	E
<i>Filago gallica</i> L.	Asteraceae	N	—	T	A	N	E
<i>Filago germanica</i> (L.) Huds.	Asteraceae	N	—	T	A	N	E
<i>Foeniculum vulgare</i> Miller	Apiaceae	N	—	H	P	N	E
<i>Galium parisiense</i> L.	Rubiaceae	N	—	T	A	N	E
<i>Galium venustum</i> Jord.	Rubiaceae	Y	Sardinian-Corsican	H	P	N	E
<i>Gastridium ventricosum</i> (Gouan) Schinz & Thell.	Poaceae	N	—	T	A	N	A
<i>Genista corsica</i> (Loisel.) DC.	Fabaceae	Y	Sardinian-Corsican	Ch	P	Y	E
<i>Genista morisii</i> Colla	Fabaceae	Y	Sardinian	Ch	P	Y	E
<i>Geranium molle</i> L.	Geraniaceae	N	—	T	A	N	E
<i>Hedypnois cretica</i> (L.) Dum.Cours.	Asteraceae	N	—	T	A	N	E
<i>Helianthemum aegyptiacum</i> (L.) Miller	Cistaceae	N	—	T	A	N	E
<i>Helianthemum nummularium</i> (L.) Mill.	Cistaceae	N	—	Ch	P	N	E

<i>Helichrysum italicum</i> (Roth) G. Don fil.	Asteraceae	N	—	Ch	P	N	E
<i>Helleborus argutifolius</i> Viv.	Ranunculaceae	Y	Sardinian-Corsican	H	P	N	E
<i>Holcus lanatus</i> L.	Poaceae	N	—	H	P	N	A
<i>Hordeum leporinum</i> Link	Poaceae	N	—	T	A	N	A
<i>Hyoseris radiata</i> L.	Asteraceae	N	—	H	P	N	E
<i>Hypericum veronense</i> Schrank	Hypericaceae	N	—	H	P	N	E
<i>Hypochaeris achyrophorus</i> L.	Asteraceae	N	—	T	A	N	E
<i>Hypochaeris glabra</i> L.	Asteraceae	N	—	T	A	N	E
<i>Hypochaeris radicata</i> L.	Asteraceae	N	—	H	P	N	E
	Campanu-						
<i>Jasione montana</i> L.	laceae	N	—	T	A	N	E
<i>Juncus acutus</i> L.	Juncaceae	N	—	He	P	N	A
<i>Juniperus oxycedrus</i> L.	Cupressaceae	N	—	P	P	N	E
<i>Juniperus sibirica</i> Burgsd.	Cupressaceae	N	—	P	P	N	E
<i>Lagurus ovatus</i> L.	Poaceae	N	—	T	A	N	A
<i>Lavandula stoechas</i> L.	Lamiaceae	N	—	Ch	P	N	E
<i>Leontodon tuberosus</i> L.	Asteraceae	N	—	H	P	N	E
<i>Leopoldia comosa</i> (L.)	Asparagaceae	N	—	G	P	N	E
<i>Linaria pelisseriana</i> (L.) Miller	Plantaginaceae	N	—	T	A	N	E
<i>Linum bienne</i> Miller	Linaceae	N	—	H	B	N	E
<i>Linum strictum</i> L.	Linaceae	N	—	T	A	N	E
<i>Linum trigynum</i> L.	Linaceae	N	—	T	A	N	E
<i>Lolium perenne</i> L.	Poaceae	N	—	H	P	N	A
<i>Lophochloa cristata</i> (L.) Hyl.	Poaceae	N	—	T	A	N	A
<i>Lotus alpinus</i> (DC.) Ramond	Fabaceae	N	—	H	P	N	E
<i>Malva neglecta</i> Wallr.	Malvaceae	N	—	T	A	N	E
<i>Medicago arabica</i> (L.) Hudson	Fabaceae	N	—	T	A	N	E
<i>Medicago lupulina</i> L.	Fabaceae	N	—	T	A	N	E
<i>Medicago minima</i> (L.) L.	Fabaceae	N	—	T	A	N	E
<i>Medicago polymorpha</i> L.	Fabaceae	N	—	T	A	N	E
<i>Medicago truncatula</i> Gaertner	Fabaceae	N	—	T	A	N	E
<i>Medicago turbinata</i> (L.) All.	Fabaceae	N	—	T	A	N	E
<i>Melica ciliata</i> L.	Poaceae	N	—	H	P	N	A
<i>Mentha pulegium</i> L.	Lamiaceae	N	—	H	P	N	E
	Caryophyl-						
<i>Moenchia erecta</i> (L.) P. Gaertner, B. Meyer & Scherb.	laceae	N	—	T	A	N	E
<i>Myosotis arvensis</i> (L.) Hill.	Boraginaceae	N	—	T	A	N	E
<i>Ononis spinosa</i> L.	Fabaceae	N	—	Ch	P	Y	E
<i>Onopordum illyricum</i> L.	Asteraceae	N	—	H	B	Y	E
<i>Ornithogalum corsicum</i> Jord. et Fourr.	Asparagaceae	Y	Sardinian-Corsican	G	P	N	E
<i>Ornithopus compressus</i> L.	Fabaceae	N	—	T	A	N	E
	Orobancha-						
<i>Orobanche minor</i> Sm.	ceae	N	—	T	A	N	E

	Amaryllida-		Sardinian-Mediterranean is-				
<i>Pancratium illyricum</i> L.	ceae	Y	lands	G	P	N	E
<i>Papaver rhoeas</i> L.	Papaveraceae	N	—	T	A	N	E
	Orobancha-		—				
<i>Parentucellia latifolia</i> (L.) Caruel	ceae	N	—	T	A	N	E
	Caryophyl-		—				
<i>Paronychia echinulata</i> Chater	laceae	N	—	T	A	N	E
	Caryophyl-		—				
<i>Petrorhagia dubia</i> (Rafin.) G. Lopez & Romo	laceae	N	—	T	A	N	E
	Caryophyl-		—				
<i>Petrorhagia prolifera</i> (L.) P.W. Ball & Heywood	laceae	N	—	T	A	N	E
	Caryophyl-		—				
<i>Petrorhagia saxifraga</i> (L.) Link	laceae	N	—	H	P	N	E
<i>Phillyrea angustifolia</i> L.	Oleaceae	N	—	P	P	N	A
<i>Phleum pratense</i> L.	Poaceae	N	—	H	P	N	A
<i>Pinus nigra</i> subsp. <i>laricio</i> Maire	Pinaceae	N	—	P	P	N	A
<i>Pistacia lentiscus</i> L.	Anacardiaceae	N	—	P	P	N	A
<i>Plantago afra</i> L.	Plantaginaceae	N	—	T	A	N	A
<i>Plantago bellardii</i> All.	Plantaginaceae	N	—	T	A	N	A
<i>Plantago coronopus</i> L.	Plantaginaceae	N	—	T	A	N	A
<i>Plantago lagopus</i> L.	Plantaginaceae	N	—	T	A	N	A
<i>Plantago lanceolata</i> L.	Plantaginaceae	N	—	H	P	N	A
<i>Plantago sarda</i> C. Presl	Plantaginaceae	Y	Sardinian-Corsican	Ch	P	N	A
<i>Poa annua</i> L.	Poaceae	N	—	T	A	N	A
<i>Poa bulbosa</i> L.	Poaceae	N	—	H	P	N	A
<i>Poa compressa</i> L.	Poaceae	N	—	H	P	N	A
	Caryophyl-		—				
<i>Polycarpon tetraphyllum</i> (L.) L.	laceae	N	—	T	A	N	A
<i>Polygonum aviculare</i> L.	Polygonaceae	N	—	T	A	N	E
<i>Potentilla reptans</i> L.	Rosaceae	N	—	H	P	N	E
<i>Prunella laciniata</i> (L.) L.	Lamiaceae	N	—	H	P	N	E
<i>Prunus spinosa</i> L.	Rosaceae	N	—	P	P	Y	E
	Hypolepida-		—				
<i>Pteridium aquilinum</i> (L.) Kuhn	ceae	N	—	G	P	N	A
			Sardinian-Mediterranean is-				
<i>Ptilostemon casabonae</i> (L.) W. Greuter	Asteraceae	Y	lands	H	P	Y	E
<i>Pyrus spinosa</i> Forssk.	Rosaceae	N	—	P	P	Y	E
<i>Quercus ilex</i> L.	Fagaceae	N	—	P	P	N	A
<i>Quercus pubescens</i> Willd.	Fagaceae	N	—	P	P	N	A
<i>Ranunculus bulbosus</i> L.	Ranunculaceae	N	—	H	P	N	E
<i>Raphanus raphanistrum</i> L.	Brassicaceae	N	—	T	A	N	E
<i>Rosa canina</i> L.	Rosaceae	N	—	NP	P	Y	E
<i>Rosa serafinii</i> Viv.	Rosaceae	N	—	NP	P	Y	E

<i>Rubia peregrina</i> L.	Rubiaceae	N	—	P	P	N	E
<i>Rubus ulmifolius</i> Schott	Rosaceae	N	—	NP	P	Y	E
<i>Rumex acetosella</i> L.	Polygonaceae	N	—	H	P	N	A
<i>Rumex bucephalophorus</i> L.	Polygonaceae	N	—	T	A	N	A
<i>Rumex pulcher</i> L.	Polygonaceae	N	—	T	A	N	A
<i>Sanguisorba minor</i> Scop.	Rosaceae	N	—	H	P	N	E
<i>Santolina corsica</i> Jord. & Fourr.	Asteraceae	Y	Sardinian-Corsican	Ch	P	N	E
<i>Santolina insularis</i> (Genn. ex Fiori) Arrigoni	Asteraceae	Y	Sardinian	Ch	P	N	E
	Caryophyll-		—				
<i>Scleranthus polycarpus</i> L.	laceae	N		T	A	N	E
<i>Scorzonera callosa</i> Moris	Asteraceae	Y	Sardinian	H	P	N	E
<i>Sedum alpestre</i> Vill.	Crassulaceae	N	—	Ch	P	N	E
<i>Sedum caeruleum</i> L.	Crassulaceae	N	—	T	A	N	E
<i>Sedum hispanicum</i> L.	Crassulaceae	N	—	T	A	N	E
<i>Sedum stellatum</i> L.	Crassulaceae	N	—	T	A	N	E
<i>Serapias lingua</i> L.	Orchidaceae	N	—	G	P	N	E
<i>Sherardia arvensis</i> L.	Rubiaceae	N	—	T	A	N	E
<i>Sideritis romana</i> L.	Lamiaceae	N	—	T	A	N	E
	Caryophyll-		—				
<i>Silene gallica</i> L.	laceae	N		T	A	N	E
	Caryophyll-						
<i>Silene nodulosa</i> Viv.	laceae	Y	Sardinian-Corsican	H	P	N	E
	Caryophyll-		—				
<i>Silene vulgaris</i> (Moench) Garke	laceae	N		H	P	N	E
<i>Sisymbrium officinale</i> (L.) Scop.	Brassicaceae	N	—	T	A	N	E
<i>Sixalis atropurpurea</i> (L.) Greuter et Burdet	Caprifoliaceae	N	—	T	A	N	E
<i>Smyrniurn rotundifolium</i> Miller	Apiaceae	N	—	H	P	N	E
<i>Sonchus asper</i> (L.) Hill.	Asteraceae	N	—	T	A	N	E
<i>Sonchus oleraceus</i> L.	Asteraceae	N	—	T	A	N	E
	Caryophyll-		—				
<i>Spergularia rubra</i> (L.) J. & C. Presl.	laceae	N		Ch	P	N	E
			Sardinian-Mediterranean is-				
<i>Stachys glutinosa</i> L.	Lamiaceae	Y	lands	Ch	P	N	E
	Caryophyll-		—				
<i>Stellaria media</i> (L.) Vill.	laceae	N		T	A	N	E
<i>Teesdalia coronopifolia</i> (J.P. Bergeret) Thell.	Brassicaceae	N	—	T	A	N	E
<i>Teucrium marum</i> L.	Lamiaceae	N	—	Ch	P	N	E
<i>Teucrium scordium</i> subsp. <i>scordioides</i> (Schreb.) Arcang.	Lamiaceae	N	—	H	P	N	E
<i>Thapsia garganica</i> L.	Apiaceae	N	—	H	P	N	E
<i>Thymus catharinae</i> Camarda	Lamiaceae	Y	Sardinian	Ch	P	N	E
<i>Tolpis umbellata</i> Bertol.	Asteraceae	N	—	T	A	N	E
<i>Torilis arvensis</i> (Huds.) Link	Apiaceae	N	—	T	A	N	E
<i>Tragopogon porrifolius</i> L.	Asteraceae	N	—	H	B	N	E

<i>Trifolium angustifolium</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium arvense</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium campestre</i> Schreb.	Fabaceae	N	–	T	A	N	E
<i>Trifolium cherleri</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium glomeratum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium nigrescens</i> Viv.	Fabaceae	N	–	T	A	N	E
<i>Trifolium repens</i> L.	Leguminosae	N	–	T	A	N	E
<i>Trifolium scabrum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium stellatum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium striatum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium strictum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium subterraneum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Trifolium tomentosum</i> L.	Fabaceae	N	–	T	A	N	E
<i>Tuberaria guttata</i> (L.) Fourr.	Cistaceae	N	–	T	A	N	E
<i>Umbilicus rupestris</i> (Salisb.) Dandy	Crassulaceae	N	–	G	P	N	E
<i>Urospermum dalechampii</i> (L.) Scop. ex F.W.Schmidt	Asteraceae	N	–	H	P	N	E
<i>Verbascum conocarpum</i> Moris	Scrophulariaceae	Y	Sardinian-Mediterranean islands	H	B	N	E
<i>Veronica arvensis</i> L.	Plantaginaceae	N	–	T	A	N	E
<i>Vicia cracca</i> L.	Leguminosae	N	–	H	P	N	E
<i>Vicia lathyroides</i> L.	Fabaceae	N	–	T	A	N	E
<i>Viola limbarae</i> (Merxm. & Lippert) Arrigoni	Violaceae	Y	Sardinian	H	P	N	E
<i>Vulpia ligustica</i> (All.) Link	Poaceae	N	–	T	A	N	A
<i>Vulpia myuros</i> (L.) C.C. Gmelin	Poaceae	N	–	T	A	N	A
<i>Vulpia sicula</i> (C.Presl) Link	Poaceae	N	–	H	P	N	A

Table S4. Analysis of variance (ANOVA) was done to test the effect of the number of endemic species (explanatory variable) on species richness, evenness diversity index and pastoral value and, calculated in the 63 sampled plots of the study area.

Response variables	Estimate	Df	Mean Sq	F value	Pr(>F)
Species richness	2.73	1	901.5	18.06	7.45e-05 ***
Evenness	-0.01	1	0.02	8.96	0.003 **
Pastoral value	-0.12	1	1.86	0.05	0.83

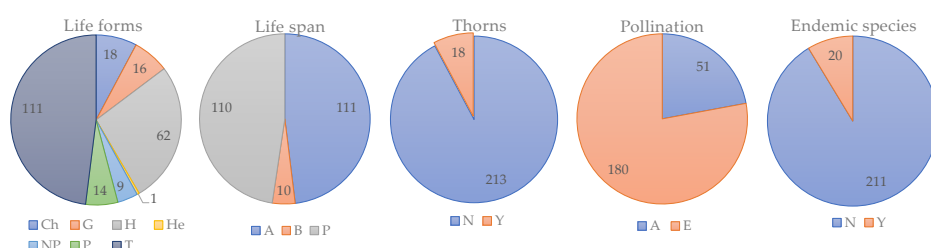


Figure S1. The pie charts show the number of species distributed according to the life forms, life span, presence of thorns, pollination type and the number of endemic species in the 63 sampled plots of the study area. **Life forms** Ch: Chamaephytes, G: Geophytes, H: Hemicryptophytes, He: Helophytes, NP: Nano-phanerophytes, P: Phanerophytes, T: Therophytes. **Life span** A: Annual, B: Biennial, P: Perennial.

Biennial, P: Perennial. **Presence of thorns** Y: Yes, N: No. **Pollination** A: Anemophily, E: Entomophily. **Endemic species** Y: Yes, N: No.

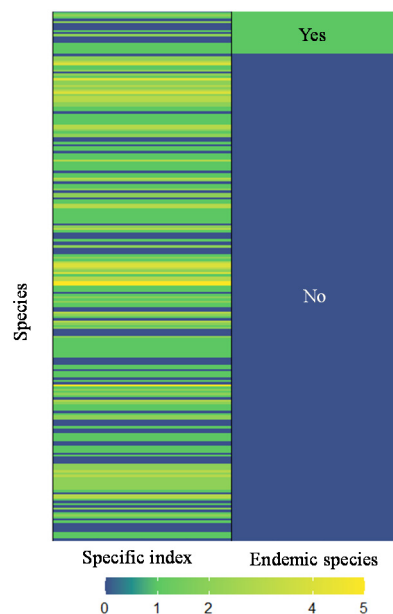


Figure 2. Correlation between the presence of endemic species and the specific index for the evaluation of forage pastoral value (from 0 – species of no forage interest – to 5 – species excellent for quality, palatability and productivity, according to Delpech, 1960).

References

1. Canu, S.; Rosati, L.; Fiori, M.; Motroni, A.; Filigheddu, R.; Farris, E. Bioclimate Map of Sardinia (Italy). *J. Maps* **2015**, *11*, 711–718, doi:10.1080/17445647.2014.988187.