

On-line Suppl. Tab. 1. Plant associations and subassociations in the study area. In the bottom of the table, the rare species are reported with 1, + or r in less than three plots.

Class	***Caricetea curvulae Br.-Bl. 1948	Order	**Caricetalia curvulae Br.-Bl. in Br.-Bl. et Jenny 1926	Alliance	*Agrostio laetiae-Sibbaldion parviflorae Vural 1996	
Subassociations			Bunio microcarpac-Festucetum pinifoli		Lotus corniculati-Festucetum turcici	
Plot No.	8	9	oxytropetosum laetiae-	verbascosum froedinii		
Size of plot (m ²)	6	7	21 22 24	23 25 20 11	19 14 15 16 17 18 13	
Date	20/07/2016	20/07/2016	20/20 20 20 20	20/20 20 20 20	36 38 40 39 31 33 32 35	
Coordinates	40°27'20" E38°23'17"	40°27'20" E38°23'17"	24°36'32"E 41°19" N	24°36'32"E 41°19" N	44 42 43 44 45 46 47 48	
Aspect	N	S	N	N	45 40 30 40 30 30 30 30	
Slope (%)	25	30	20	10	45 40 45 45 30 30 30 30	
Height of shrub layer (cm)	0	0	0	0	20 15 20 15 20 15 20 15	
Coverage of shrub layer (%)	0	0	0	0	30 25 25 25 20 15 30 20	
Height of herb layer (cm)	40	40	20	35	30 40 30 40 30 40 30 40	
Coverage of herb layer (%)	85	85	85	85	40 40 40 40 40 40 40 40	
Altitude (m)	2200	2253	2272	2255	2240	2318
Total species richness (vascular plants)	26	25	21	19	20	22 26 23 19 22 36 30 35 30 29 25 20 17 22 15 17 16 25 30 20 23 23 17 16 15 14 11 10 27 29 26 25 22 31 30 26 30
<i>Lasioneuriinae</i>						
<i>Phlomido armentacea-Astragalion microcephalii</i>						
Akman, Ketençli, Quézel and Demirörs 1984						
H						
<i>Taurium chamaedrys</i> subsp. <i>chamaedrys</i>						
<i>Silene olmpicae-Astragalion densipeti Akman, Quézel, Yurdakulol, Ketençli, Quézel, Demirörs 1987</i>						
H						
<i>Enysium pulchellum</i> subsp. <i>pulchellum</i>						
<i>Astragalus microcephalus-Brometea tomentelli Quézel</i>						
1973 em. Parolly						
H						
<i>Hypericum linarioides</i> subsp. <i>linarioides</i>						
H						
<i>Cota melanoloma</i> subsp. <i>melanoloma</i>						
H						
<i>Stachys bituminosa</i>						
<i>Astragalus microcephalus-Brometea tomentelli Quézel</i>						
1973 em. Parolly						
H						
<i>Ajuga orientalis</i>						
H						
<i>Silene sparganifolia</i>						
Others						
H						
<i>Thymus spyleus</i> subsp. <i>resultans</i>						
2a	1	1	2a	+	1	+
H						
<i>Ranunculus acerosella</i>						
H						
<i>Helictotrichon pubescens</i> subsp. <i>pubescens</i>						
H						

Class		Astragalus micracanthi-Brometea tomentelli Quzel 1973 em Parolly																		
Order		Hyperico linarioidis-Thymetalia scorpii Akman, Quzel, Yurdakul, Ketencioglu, Demirors 1987																		
Alliance		Pedicularo camosa-Asterion alpinii Akman, Quzel, Yurdakul, Ketencioglu, Demirors 1987																		
Date		Alysso pseudo-mooradii-Juniperetum saxatilis																		
Associations			Bunio microcarpa-Festucetum pinifoli oxytroposum laiziae verbascosum froidenii oxytroposum laiziae verbascosum froidenii																	
Subassociations																				
Plot No.																				
Size of plot (m ²)																				
Coordinates																				
Aspect																				
Slope (%)																				
Height of shrub layer (cm)																				
Coverage of shrub layer (%)																				
Height of herb layer (cm)																				
Coverage of herb layer (%)																				
Altitude (m)																				
Total species richness (vascular plants)																				
H <i>Minuartia juniperina</i>	+ 1																			
H <i>Hypericum orientale</i>	-																			
H <i>Medicago papillosa</i>	-																			
H <i>Alchemilla erythropoda</i>	-																			
H <i>Hypericum elongatum</i> subsp. <i>elongatum</i>	-																			
G <i>Oreohylotelephium oligophyllum</i>	+																			
H <i>Carum megalophyllum</i>	-																			
Polygonum hispanicum subsp. <i>bistoria</i>	-																			
H <i>Trifolium ochroleucum</i>	+																			
G <i>Crocus speciosus</i> subsp. <i>sibiricus</i>	-																			
G <i>Poa bulbosa</i>	-																			
H <i>Cytisus pinnatus</i>	-																			
H <i>Ligustrum arvensis</i>	-																			
H <i>Polygonia pruinosa</i> subsp. <i>pruinosa</i>	+																			
H <i>Poa pratensis</i>	-																			
H <i>Helianthemum nummularium</i> subsp. <i>nummularium</i>	1																			
H <i>Ranunculus acutifolius</i>	-																			
H <i>Achillea</i>	-																			
H <i>Gallium humifusum</i>	-																			
H <i>Ranunculus sericeus</i>	-																			
T <i>Alyssum minutum</i>	-																			
H <i>Bajania tenuifolia</i>	-																			
H <i>Calaniongrus arundinaceus</i>	-																			
H <i>Carex oreophila</i>	-																			
H <i>Sorbaria cana</i> var. <i>jacquiniana</i>	-																			
H <i>Gallium incanum</i> subsp. <i>elatius</i>	1																			

Class	Astragalus microcephalus-Brometea tomentellae Quézel			
Order	1973 em Parolly			
Alliance	<i>Hyperico linariaeflora-Thymelaea scorpii</i> Akman, Quézel, Yurdakul, Ketenoglu, Demirci 1987			
Associations	Pedicularario comosa-Asterion alpinii Alman, Quézel, Yurdakul, Ketenoglu, Demirci 1987			
Subassociations	Alysso pseudo-mouradicae-Juniperetum saxatilis			
Plot No	16/07/2016			
Size of plot (m ²)	16/07/2016			
Date	16/07/2016			
Coordinates	16/07/2016			
Aspect	16/07/2016			
Slope (%)	16/07/2016			
Height of shrub layer (cm)	16/07/2016			
Coverage of shrub layer (%)	16/07/2016			
Height of herb layer (cm)	16/07/2016			
Coverage of herb layer (%)	16/07/2016			
Altitude (m)	16/07/2016			
Total species richness (vascular plants)	16/07/2016			
H <i>Tanacetum orientatum</i>	+			
H <i>Thlaspi ocrealeum</i>	+			
H <i>Sisymbrium elatum</i>	+			
H <i>Bromus danthoniae</i>	+			
H <i>Pedicularis caucasica</i>	+			
H <i>Onobrychis montana</i> subsp. <i>cadmea</i>	+			
H <i>Crambe orientalis</i> var. <i>orientalis</i>	+			
H <i>Lamium galactophyllum</i>	+			
H <i>Mysotis lithospermifolia</i>	+			
H <i>Nepeta nuda</i> subsp. <i>nuda</i>	+			
H <i>Potentilla capnodocia</i>	+			
G <i>Gagea glauca</i>	+			
H <i>Senecio viscosus</i>	+			
H <i>Asperula laxiflora</i>	+			
A <i>Anemone narcissiflora</i> subsp. <i>wilkensii</i>	+			
H <i>Cirsium edule</i>	+			
A <i>Astragalus barbatus</i> var. <i>barbatus</i>	+			
H <i>Digitalis lamarckii</i>	+			
M <i>Marrubium astranicum</i>	+			
H subsp. <i>astranicum</i>	+			
H <i>Stellaria holostea</i>	+			
H <i>Mysotis alpestris</i>	+			
H <i>Hedysarum armenium</i> subsp. <i>armenium</i>	+			
H <i>Senecio pseudo-orientalis</i>	+			
Less common species:				
G <i>Geranium bicornutum</i> subsp. <i>bicornutum</i> [H], 31; +; <i>Syneuma amplexicaulle</i> subsp. <i>amplexicaule</i> var. <i>amplexicaule</i> [H], 31; +; <i>Lapsana communis</i> var. <i>alpestre</i> [H], 42; +; <i>Aethionema ibereum</i> [H], 17; +; <i>Tritolium hybridum</i> var. <i>annulatum</i> [H], 33; +; <i>Godium verum</i> subsp. <i>vernum</i> [H], 55; +; <i>Leontopodium crispus</i> var. <i>asper</i> [H], 14; +; <i>Hieracium cistifolium</i> [H], 6; +; <i>Lamium macdonaldii</i> [H], 9; +; <i>Carduus laevigatus</i> [H], 22; +; <i>Centauraea reuteriana</i> subsp. <i>reuteriana</i> [H], 14; +; <i>Allium aucheri</i> [H], 14; +; <i>Sedum pallidum</i> var. <i>bithynicum</i> [H], 57; +; <i>Sedum pulchellum</i> subsp. <i>pulchellum</i> [H], 58; +; <i>Cirsium rhizacephalum</i> subsp. <i>sinistrum</i> [H], 7; +; <i>Euphorbia rigida</i> [H], 12; +; <i>Minuartia hybrida</i> subsp. <i>turkestanica</i> [H], 13; +; <i>Cruciaria sibirica</i> [H], 18; +; <i>Bromus commutatus</i> [H], 14; +; <i>Bromus lanceolatus</i> [H], 16; +; <i>Epipactis aphylla</i> subsp. <i>aphylla</i> [H], 42; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 16; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 17; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 18; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 19; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 20; +; <i>Asplenium nidus</i> subsp. <i>alpinum</i> [H], 21; +; <i>Rosa canina</i> [H], 53; +; <i>Oxydendrum parviflorum</i> subsp. <i>parviflorum</i> [H], 32; +; <i>Myrsinella</i> subsp. <i>europaea</i> [H], 15; +; <i>Stipa elenebergiana</i> [G], 32; +; <i>Poa chavillii</i> [H], 15; +; <i>Poa elenebergiana</i> [G], 32; +				

On-line Suppl. Tab. 2. Inset correlation coefficient and eigenvalues of the first two axes for canonical correspondence analysis and environmental variables. Bold refers to the highly significant ones.

	Axis 1	Axis 2
Aspect	-0.30	0.64
Slope	-0.50	-0.61
Altitude	0.05	0.80
Soil moisture ratio (SM)	-0.97	0.14
pH	-0.43	0.01
Soil clay content (Clay)	-0.94	0.13
Total soil nitrogen ratio (N)	-0.98	0.14
Canonical eigenvalue	0.70	0.51
% variance explained	13.75	10.12
Cumulative % variance	13.75	23.87
Kendal rank correlation of species/environment scores	0.72	0.66