

On-line Supplement Tab. 1. Overall average dissimilarities (lower left hand corners) and taxa contribution (up to 50 % of overall dissimilarities, upper right hand corners) between all the types of chasmophytic niche assemblages with *Campanula tommasiniana* on Mt Učka (NW Adriatic) according to SIMPER analysis. Taxa abbreviations as in Tab. 4

assemblages		SjC		GS		C		CfC		SaC	
S	GM	GS	C	C	S	M					
SjC	S	Cam tom (2.2), Mic thy (2), Asp tri (1.8), Sil sax (1.7), Syn nur (1.5), Ort cup, Syn nur (1.5), Tor tor, Ger mac, Asp rtm, Sch sp (1.4), Teu aur, Cet off (1.3), Ser lac (1.2)	Mic thy (1.9), Asp tri (1.8), Sil sax (1.7), Syn nur (1.5), Hom phi, Mic thy, Syn rur (1.4), Nec cri, Ort cup (1.3), Tor tor, Hom se, Sen abr, Ger mac (1.2), Cam tom, Sch sp, Asp rtm, Cet off (1.1), Cal var, Ser lac, Fis dub (1)	Sil sax (2), Asp tri (1.5), Hom phi, Mic thy, Syn rur (1.4), Nec cri, Ort cup (1.3), Tor jun (1.4), Ano vit, Cam tom, Rad com, Rad com (1.3), Pse alb, Tor com (1.2), Hom phi, Sch sp (1.2), Hom ser, Ara alp (1.1)	Pla str, Asp tri, Myc mur, Hom phi (1.8), Cym mur (1.7), Sed alb, Sil sax (1.6), Ses jun (1.4), Ano vit, Cam tom, Rad com, Rad com (1.3), Pse alb, Tor com (1.2), Hom phi, Sch sp (1.2), Hom ser, Ara alp (1.1)	Ses aut, Cte mol, Hom ser (1.8), Asp rtm (1.7), Sed alb, Sil sax (1.6), Sco cir, Tor tor (1.5), Cet off, Fra om, Pla str, Asp acu (1.4), Ses jun, Asp tri, Ano vit, Tor nit (1.3), Hom phi, Col cal, Sch sp (1.2)	Pla str (2.1), Cte mol, Sil sax (1.7), Hom phi, Asp tri, Sed alb, Ses jun (1.6), Ses aut, Nec bes (1.5), Sch sp (1.4), Tor tor, Ort cup, Cam tom, Asp rtm (1.3), Nec com, Syn rur (1.2)				
GM	69.46	Sil sax (2.1), Hie bup (1.9), Glo cor (1.8), Sta sub, Ser lac (1.7), Sch sp (1.6), Tha min (1.4), Teu mon, Tor tor, Asp tri (1.3)	Cte mol (2.3), Ath tur (2.2), Asp rtm, Nec cri (1.6), Ser lac, Hom phi (1.5), Sen abr, Asp tri (1.4), Fis dub, Tor tor (1.3), Hom ser (1.2), Sch sp, Cal var (1.1)	Cys fra, Mic thy (2.5), Cym mur (2.3), Hom phi, Pla str (2.2), Myc mur, Glo cor (2.1), Sil sax (1.9), Rad com (1.5), Tor tor (1.4), Sch sp, Ara alp (1.4)	Ses aut (2.3), Sat mon, Cte mol, Hom ser (2.2), Glo cor (2.1), Cet off (2.3), Sil sax, Cte mol, Sil sax (1.9), Sco cir (1.8), Asp tri, Tor tor, Cam tom, Pla str, Fra orn (1.7), Asp acu, Asp rtm (1.6), Tor nit (1.5)	Pla str (2.6), Hom ser (2.4), Glo cor, Asp tri (2.3), Sil sax, Cte mol, Hom phi (2), Ses aut, Nec bes (1.8), Sch sp (1.7), Asp rtm (1.6), Nec com (1.5)					
GS	72.82	55.61	Asp rtm, Ath tur (1.9), Hie bup (1.6), Hom phi, Nec cri (1.5), Sta sub, Sen abr, Ara sco, Asp tri (1.4), Fis dub (1.3), Ser lac, Sch sp, Tha min, Mic thy, Tor tor (1.2)	Cys fra (2.4), Cym mur (2.3), Hom phi, Pla str, Myc mur (2.1), Cam tom (2), Asp rtm, Ath tur (1.7), Sil sax, Rad com, Tor tor (1.5), Sch sp (1.3)	Cor eme (2.3), Sat mon (2.2), Cte mol, Hom ser (2.1), Cet off (1.9), As tri (1.8), Sco cir, Tor tor, Ath tur (1.7), Fra orn, Pla str, Asp acu (1.6), Sil sax, Tor nit (1.5), Col cal (1.4), Hed hed (1.3)	Asp tri, Hom ser (2.4), Cam tom (2.3), Cte mol, Hom phi (1.9), Ses aut (1.8), Nec bes, Ath tur (1.7), Sil sax, Sch sp, Asp rtm (1.6), Tor tor, Nec com (1.5), Por pla (1.3)					

On-line Supplement Tab. 1. – continued

assamblages	SjC			CfC			SaC		
	S	GM	GS	C		S	S	M	
C	70.58	64.8	64.08		Plat str, Myc mur (1.9), Hom phi, Ath tur (1.8), Cym mur (1.7), Cam tom (1.5), Rad com, Tor tor (1.3), Hom ser, Sch sp, Fis dub (1.2), Ara alp, Ger rob, Pse alb, Pse cat (1.1)	Sat mon, Ses aut, Ath tur (1.9), Cet off (1.8), Hom ser (1.7), Sco cir (1.6), Asp rtm, Tor tor, Pla str, Fra orn, Hom phi, Asp acu (1.5), Asp tri, Tor nit (1.4), Col cal (1.3), Fis dub, Hed hel, Nec cri (1.2)	Ath tur, Asp tri, Hom phi (1.8), Ses aut, Sch sp, Nec bes, Cte mol (1.6), Cam tom (1.5), Asp rtm (1.4), Nec com, Tor tor (1.3), Por pla (1.2), Cyc pur, Sen abr, Fis dub (1.1), Ort cup (1)		
CfC	79.32	83.45	84.52	72.26		Cys fra (1.8), Sat mont, Cor eme (1.7), Asp rtm, Pla str, Hom phi (1.6), Myc mur, Ses aut, Cet off, Hom ser (1.5), Sco cir, Ano vit, Tor tor, Asp tri (1.3), Cam tom, Fra orn (1.2)	Pla str (1.7), Hom phi, Cym mur (1.6), Com tom, Ses aut, Nec bes (1.3), Myc mur, Tor tor (1.2), Rad com, Asp rtm (1.2), Nec com, Pse alb, Sch sp, Por pla (1.1), Ara alp, Cyc pur (1)		
SaC	S	78.2	86.5	80.37	77.42				
	M	72.91	80.22	72.02	63.16				70.56

On-line Supplement Tab. 3. – continued

FS	<i>Galeobdolon flavidum</i>										1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	%		
GS	<i>Anthericum ramosum</i>																														9
QF	<i>Galium sylvaticum</i>																													9	
TA	<i>Acer pseudoplatanus</i>																													9	
VP	<i>Laserpitium krapfi</i>																													9	
Cr	Bryophytes																													0	
	<i>Crenidium molluscum</i>	4	4	6	5	8	7	4	4	6	4	4	4	3	3	4	4	4	6	5	5	4	4	5	4	4	5	100			
	<i>Neckera crispa</i>	6	8	7	7	7	5	6	7	4	4	6	5	5	3	5	4	4	5	5	4	4	4	4	4	4	4	96			
	<i>Schistidium</i> sp.	3	3	3		3		3	3	2	2	2	3	1	3	2				2								65			
	<i>Homalothecium philippianum</i>					4	3	3	4	5	4	4	3	3	3	3			3									57			
	<i>Plasteurhynchium striatulum</i>	4	5	4		1	4	3	4		4	4	4		3	3			3									57			
	<i>Radula complanata</i>	3	3				3	3		3	3		3	2		1		2	3	3	3							3	57		
	<i>Tortella tortuosa</i>		3			3	3	3	2		3	3	3	3	3	3		3	3	3									52		
	<i>Fissidens dubius</i>				4	3	3	3	2	2	2	2		1	3	2	3	2	3	3									48		
	<i>Neckera complanata</i>	4	3	1		1	3	3	1		1						1	3	3										39		
	<i>Pseudoleskeella catenulata</i>			3					1	3	4					1	3	3											39		
	<i>Bryum</i> sp.		1	3	3				3		3	2	2	2	2			1	3	3									35		
	<i>Homalothecium sericeum</i>	4	3	4								3	1	3	3														35		
	<i>Anomodon viticulosus</i>	5	5	4	3	4			1		1	3		3															30		
	<i>Cololejeunea calcarea</i>		3	3	4	3					1			1															30		
	<i>Pedinophyllum interruptum</i>		3	3	3		3													3									30		
	<i>Brachythecium tommasinii</i>		3	4		4								3															30		
	<i>Cirriphyllum crassinerveum</i>	1														3													22		
	<i>Encalypta streptocarpa</i>	2																											22		
	<i>Mnium marginatum</i>			4		1																							17		
	<i>Myurella julacea</i>		1													1													13		
	<i>Neckera besseri</i>				3			1																					13		
	<i>Neckera pennata</i>				3	1																							13		
	<i>Porella platyphyllo</i>						3				3	4																	13		
	<i>Anomodon attenuatus</i>												3																9		
	<i>Encalypta vulgaris</i>																		2	1									9		

On-line Supplement Tab. 4. Analytical table of the association *Sesleria autumnalis-Campanuletum tommasiniana* ass. nova on Mt. Učka (NW Adriatic)

	SaCS										SaCM																
	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	1	1	1	%				
Characteristic taxa combination																											
PPe	4	3	4	4	5	4	3	5	6	4	5	4	4	5	5	6	5	4	5	4	5	5	4	6	5	3	100
Cr	3	3	3	3	3	3	3	3	2	1	3	3	2	3	2	2	4	4	5	4	4	3	4	3	3	4	84
Qp	2	1	1	5	2	1	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	68
Cr	3	3	3	2	3	3	3	3	3	2	3	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	52
Diff. taxa comb. of elevational variants																											
Co	3	3	2	3	2	2	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19
Pra	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	19
Qi	1	1	1	1	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13
QF	1	1	1	1	3	3	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	13
Cr	3	3	3	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	19
PRa	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
AF	2	1	1	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	65
FS	3	3	3	3	3	3	3	3	3	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	39
FS	3	3	3	3	3	3	3	3	3	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	26
Vascular plants																											
AT	2	4	2	3	1	1	3	3	1	3	2	4	2	2	2	3	2	3	3	3	3	3	3	3	3	4	90
AT	3	3	2	3	2	2	3	2	2	2	3	2	3	3	4	3	3	3	3	3	3	3	3	3	3	3	55
AT	2	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	35
Qp	2	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	35
Ss	3	4	3	3	2	2	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	35
PPe	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	29
CrP	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	26
Qp	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	26
GS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23

On-line Supplement Tab. 4. – continued

	SaCS						SaCM						%									
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
CF <i>Cystopteris fragilis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PPe <i>Campanula pyramidalis</i>	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Pc1 <i>Kernera saxatilis</i>	.	.	.	.	.	.	.	.	.	.	2	1	.	.	.	.	.	.	.	.	.	.
Co <i>Viola alba</i> subsp. <i>scotophylla</i>	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ES <i>Ranunculus carinthiacus</i>	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
EP <i>Calamagrostis varia</i>	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	2
FB <i>Allium carinatum</i> subsp. <i>pulchellum</i>	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FB <i>Dianthus monspessulanus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	3	.
FB <i>Teucrium montanum</i>	3	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LPs <i>Rosa dumalis</i>	.	.	.	.	.	.	.	.	.	.	+	1	.	.	.	.	.	.	.	.	.	.
<i>Rubus</i> sp.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Qp <i>Melittis melissophyllum</i>	.	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Qp <i>Sorbus aria</i>	.	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
QF <i>Carex digitata</i>	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
QF <i>Poa nemoralis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2
Ss <i>Galium corrudifolium</i>	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tr <i>Senecio rupestris</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TG <i>Vincetoxicum hirundinaria</i>	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carduus tenuiflorus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bryophytes																						
Cr <i>Plasteurhynchium striatulum</i>	.	.	3	3	4	.	3	3	1	2	3	4	3	3	3	.	.	.	4	4	.	1
Cr <i>Tortella tortuosa</i>	.	.	3	3	4	3	.	3	3	1	.	1	.	3	1	3	.	3	2	3	3	3
Cr <i>Neckera crispa</i>	.	.	.	.	3	.	4	3	.	3	4	.	4	.	3	3	.	1	4	7	4	4
Cr <i>Anomodon viticulosus</i>	.	.	.	.	4	3	.	3	3	3	5	4	4	.	.	.	.	.	.	3	3	4
Cr <i>Crenidium molluscum</i>	.	.	4	4	4	.	.	.	.	1	3	.	4	2	3	2	3	.	4	4	3	3

On-line Supplement Tab. 4. – continued

	SaCS						SaCM						%																		
	1	2	3	4	5	6	7	8	9	0	1	2		3	4	5	6	7	8	9	0	1									
Cr <i>Schistidium</i> sp.	3	.	.	.	.	3	.	1	3	2	3	.	3	1	3	3	.	3	3	3	3	.	3	.	3	.	2	.	3	61
Cr <i>Homalothecium philippianum</i>	.	3	.	4	.	.	3	.	3	3	.	3	4	3	3	.	4	.	3	4	4	4	.	.	.	.	.	.	3	48
Cr <i>Neckera complanata</i>	.	.	.	1	.	.	1	1	.	.	.	.	.	.	3	2	.	3	3	3	3	3	3	3	1	3	3	1	3	48
Cr <i>Porella platyphylla</i>	.	.	3	3	.	3	2	1	1	3	3	.	.	.	.	.	3	.	.	.	.	3	3	3	3	3	3	3	3	45
Cr <i>Radula complanata</i>	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	3	3	3	3	3	1	1	.	1	.	1	.	32
Cr <i>Fissidens dubius</i>	.	3	1	3	.	.	.	.	1	.	.	3	1	.	2	3	.	2	.	.	.	.	.	.	.	.	.	.	.	29
Cr <i>Orthotrichum cupulatum</i>	.	.	.	.	.	3	.	.	3	3	3	.	3	.	.	.	.	.	.	3	3	.	.	.	3	1	.	3	1	29
Cr <i>Encalypta streptocarpa</i>	3	3	2	.	2	.	2	.	2	1	.	.	3	3	.	26
Cr <i>Hypnum cupressiforme</i> var. <i>cupressiforme</i>	3	3	.	3	.	.	1	.	.	.	.	.	.	.	.	3	.	.	3	3	.	1	1	.	.	.	.	.	26	
Cr <i>Tortella nitida</i>	3	3	.	3	.	3	.	.	3	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	26
Cr <i>Bryum</i> sp.	.	.	.	3	.	3	.	.	1	.	.	.	2	3	.	3	2	.	2	.	.	.	.	.	.	.	.	.	.	23
Cr <i>Weissia</i> sp.	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	2	2	2	3	2	.	.	.	.	.	.	.	.	23	
Cr <i>Syntrichia ruralis</i> var. <i>ruralis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	19
Cr <i>Cololejeunea calcarea</i>	.	3	3	3	.	.	.	.	.	.	.	2	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	16
Cr <i>Leucodon sciuroides</i>	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	3	3	.	3	.	3	.	3	.	.	.	.	.	16	
Cr <i>Neckera pennata</i>	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	5	.	.	.	.	.	.	.	.	10	
Cr <i>Ortotrichum anomalum</i>	1	.	3	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10
Cr <i>Brachythecium tommasinii</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	6	
Cr <i>Pseudoleskeella catenulata</i>	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	6
Cr <i>Scorpiurum circinatum</i>	.	.	3	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6
Cr <i>Tortella tortuosa</i> var. <i>fragillifolia</i>	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	6

SaCS–*Seslerio autumnalis*-*Campanuletum* var. *Sabia officinalis*; SaCM–*Seslerio autumnalis*-*Campanuletum* var. *Mycelis muralis*.

On-line Supplement 1 – Phytosociological and site parameters of relevés in On-line Supplement Tabs. 2–4 (rel. no.; field no.; elevation, exposition, inclination; coverage (%): S – stoniness, C – herb layer, D – moss layer, plot area; N_{tr} – number of vascular plants; N_{cry} – number of bryophytes and lichenicolous fungi; light conditions on the sampling plot: o – open site, ss – semi shaded, fs – fully shaded by the tree canopy

On-line Supplement Table 2. *Sesleria juncifoliae*-*Campanuletum tommasiniana*e

1 20110707/21; 1106 m, SSE, 90°; S-70, C-30, D-1, 10 m²; N_{tr}-15, N_{cry}-8; ss. 2 20110920/08; 815 m, SSE, 85°; S-70, C-30, D-5, 20 m²; N_{tr}-11, N_{cry}-8; o. 3 20110920/09; 760 m, NE, 85°; S-80, C-20, D-10, 20 m²; N_{tr}-8, N_{cry}-13; o. 4 20110707/15; 1208 m, ENE, 85°; S-50, C-50, D-1, 4 m²; N_{tr}-14, N_{cry}-3; o. 5 20110707/16; 1187 m, ENE, 80°; S-60, C-40, D-1, 20 m²; N_{tr}-15, N_{cry}-8; o. 6 20110707/19; 1120 m, ESE, 85°; S-60, C-35, D-5, 16 m²; N_{tr}-19, N_{cry}-7; ss. 7 20110707/14; 1216 m, SSE, 85°; S-70, C-30, 9 m²; N_{tr}-11; o. 8 20110707/20; 1116 m, ESE, 85°; S-70, C-30, D-1, 16 m²; N_{tr}-15, N_{cry}-4; o. 9 20110707/22; 1100 m, E, 90°; S-77, C-20, D-5, 9 m²; N_{tr}-14; ss. 10 20110810/10; 1232 m, SSE, 90°; S-70, C-30, D-1, 16 m²; N_{tr}-19, N_{cry}-8; ss. 11 20110810/07; 1234 m, SSE, 90°; S-70, C-30, D-1, 6 m²; N_{tr}-15, N_{cry}-4; o. 12 20110814/12; 1274 m, SSW, 90°; S-80, C-20, D-10, 20 m²; N_{tr}-15, N_{cry}-2; o. 13 20110817/10; 1236 m, WSW, 90°; S-70, C-30, D-1, 10 m²; N_{tr}-11, N_{cry}-2; ss. 14 20110817/19; 1220 m, WSW, 90°; S-80, C-20, D-1, 18 m²; N_{tr}-13, N_{cry}-2; o. 15 20110817/21; 1238 m, SW, 90°; S-80, C-20, D-1, 12 m²; N_{tr}-8, N_{cry}-5; o. 16 20110814/11; 1277 m, S, 90°; S-80, C-20, D-1, 20 m²; N_{tr}-10, N_{cry}-1; o. 17 20110817/14; 1226 m, WSW, 85°; S-80, C-20, D-1, 16 m²; N_{tr}-7, N_{cry}-2; o. 18 20110817/11; 1231 m, SW, 90°; S-80, C-20, D-1, 16 m²; N_{tr}-10, N_{cry}-5; o. 19 20110814/09; 1291 m, SE, 90°; S-70, C-30, D-1, 8 m²; N_{tr}-10, N_{cry}-1; o. 20 20110817/03; 1188 m, SE, 90°; S-70, C-30, D-1, 9 m²; N_{tr}-10, N_{cry}-5; o. 21 20110814/05; 1296 m, SE, 90°; S-85, C-15, D-1, 16 m²; N_{tr}-6, N_{cry}-3; o. 22 20110814/10; 1287 m, ESE, 90°; S-90, C-10, D-1, 8 m²; N_{tr}-10, N_{cry}-3; o. 23 20110814/06; 1295 m, ENE, 90°; S-70, C-30, D-1, 8 m²; N_{tr}-9, N_{cry}-4; o. 24 20110814/08; 1291 m, SE, 90°; S-75, C-25, D-1, 10 m²; N_{tr}-9, N_{cry}-2; o. 25 20110817/17; 1237 m, ESE, 85°; S-80, C-20, D-1, 10 m²; N_{tr}-6, N_{cry}-1; o. 26 20110817/18; 1235 m, ESE, 90°; S-70, C-30, D-1, 20 m²; N_{tr}-7, N_{cry}-2; o. 27 20110814/07; 1286 m, SSE, 90°; S-70, C-30, D-1, 20 m²; N_{tr}-8, N_{cry}-2; o. 28 20110817/02; 1192 m, ESE, 90°; S-80, C-20, D-1, 15 m²; N_{tr}-9, N_{cry}-4; o. 29 20110817/04; 1189 m, WSW, 90°; S-60, C-40, D-1, 10 m²; N_{tr}-6, N_{cry}-6; o. 30 20110817/08; 1254 m, NW, 90°; S-80, C-20, D-1, 9 m²; N_{tr}-13, N_{cry}-3; o. 31 20110817/09; 1254 m, W, 80°; S-70, C-30, D-1, 4 m²; N_{tr}-7, N_{cry}-2; o. 32 20110817/01; 1197 m, ESE, 90°; S-70, C-30, D-1, 6 m²; N_{tr}-6, N_{cry}-1; o. 33 20110817/05; 1188 m, SSE, 120°; S-80, C-20, D-1, 16 m²; N_{tr}-8, N_{cry}-82; o. 34 20110817/20; 1194 m, SW, 90°; S-80, C-20, D-1, 20 m²; N_{tr}-9; o. 35 20110817/21; 1174 m, SSW, 90°; S-70, C-30, D-1, 8 m²; N_{tr}-9; o. 36 20110813/05; 1275 m, ENE, 90°; S-65, C-35, D-1, 10 m²; N_{tr}-13, N_{cry}-5; o. 37 20110813/10; 1316 m, E, 90°; S-80, C-20, D-1, 8 m²; N_{tr}-11, N_{cry}-2; o. 38 20110823/06; 1278 m, SSW, 90°; S-80, C-20, D-1, 10 m²; N_{tr}-11, N_{cry}-4; o. 39 20110814/04; 1256 m, NE, 90°; S-60, C-35, D-5, 10 m²; N_{tr}-10, N_{cry}-5; o. 40 20110820/10; 1140 m, SE, 90°; S-80, C-20, D-1, 16 m²; N_{tr}-7, N_{cry}-4; o. 41 20110813/06; 1271 m, SSW, 90°; S-80, C-20, D-1, 12 m²; N_{tr}-10, N_{cry}-7; o. 42 20110813/07; 1270 m, NNE, 90°; S-70, C-20, D-10, 9 m²; N_{tr}-10, N_{cry}-7; o. 43 20110813/09; 1300 m, NW, 90°; S-70, C-30, D-1, 20 m²; N_{tr}-16, N_{cry}-6; o. 44 20110813/08; 1300 m, E, 85°; S-60, C-40, D-5, 5 m²; N_{tr}-19, N_{cry}-8; o. 45 20110810/05; 1235 m, SE, 85°; S-50, C-40, D-10, 10

m²; N_{tr}-17, N_{cry}-10; o. 46 20110823/02; 1301 m, SE, 85°; S-70, C-30, D-5, 12 m²; N_{tr}-13, N_{cry}-9; o. 47 20110817/15; 1266 m, NE, 90°; S-60, C-30, D-10, 18 m²; N_{tr}-8, N_{cry}-6; ss. 48 20110817/07; 1239 m, S, 90°; S-70, C-25, D-5, 9 m²; N_{tr}-9, N_{cry}-5; ss. 49 20110817/13; 1226 m, NE, 90°; S-90, C-10, D-1, 20 m²; N_{tr}-7, N_{cry}-5; o. 50 20110810/06; 1228 m, ESE, 90°; S-80, C-15, D-5, 20 m²; N_{tr}-11, N_{cry}-5; o. 51 20110707/17; 1162 m, NE, 90°; S-75, C-20, D-5, 7 m²; N_{tr}-10, N_{cry}-6; o. 52 20110814/03; 1280 m, WNW, 90°; S-70, C-20, D-10, 12 m²; N_{tr}-8, N_{cry}-87; fs. 53 20110708/04; 965 m, SE, 90°; S-70, C-30, D-1, 16 m²; N_{tr}-9, N_{cry}-8; o. 54 20110813/11; 1321 m, E, 80°; S-75, C-25, D-10, 10 m²; N_{tr}-10, N_{cry}-9; fs. 55 20110813/12; 1324 m, ENE, 90°; S-60, C-30, D-20, 10 m²; N_{tr}-9, N_{cry}-8; ss. 56 20110823/03; 1298 m, SSW, 90°; S-65, C-35, D-1, 6 m²; N_{tr}-9, N_{cry}-4; o. 57 20110813/02; 1260 m, NW, 80°; S-30, C-40, D-40, 16 m²; N_{tr}-10, N_{cry}-10; o. 58 20110813/03; 1255 m, NNE, 85°; S-60, C-30, D-10, 12 m²; N_{tr}-16, N_{cry}-10; ss.

On-line Supplement Table 3. *Cystopteri fragilis-Campanuletum tommasinianae*

1 20110820/06; 1116 m, NNW, 90°; S-40, C-30, D-60, 10 m²; N_{tr}-11, N_{cry}-12; fs. 2 20110820/11; 1095 m, ENE, 85°; S-30, C-30, D-70, 16 m²; N_{tr}-13, N_{cry}-16; fs. 3 20110823/05; 1297 m, NE, 90°; S-30, C-40, D-60, 12 m²; N_{tr}-11, N_{cry}-17; fs. 4 20110831/07; 1116 m, WNW, 70°; S-20, C-30, D-70, 10 m²; N_{tr}-10, N_{cry}-13; fs. 5 20110820/15; 1168 m, SSW, 85°; S-20, C-30, D-70, 16 m²; N_{tr}-4, N_{cry}-17; fs. 6 20110820/12; 1110 m, SW, 85°; S-20, C-40, D-70, 12 m²; N_{tr}-14, N_{cry}-6; fs. 7 20110814/13; 1175 m, E, 90°; S-50, C-10, D-50, 20 m²; N_{tr}-12, N_{cry}-11; fs. 8 20110820/01; 1138 m, ENE, 90°; S-40, C-20, D-40, 20 m²; N_{tr}-10, N_{cry}-10; fs. 20110820/06; 1116 m, NNW, 90°; S-40, C-30, D-60, 10 m²; N_{tr}-11, N_{cry}-12; fs. 9 20110823/01; 1335 m, SSW, 80°; S-40, C-30, D-40, 6 m²; N_{tr}-11, N_{cry}-9; fs. 10 20110820/03; 1107 m, NE, 90°; S-60, C-20, D-40, 12 m²; N_{tr}-5, N_{cry}-11; fs. 11 20110820/04; 1102 m, SW, 85°; S-50, C-30, D-30, 12 m²; N_{tr}-8, N_{cry}-10; fs. 12 20110820/02; 1130 m, ENE, 90°; S-40, C-30, D-40, 15 m²; N_{tr}-8, N_{cry}-11; fs. 13 20110813/01; 1310 m, NE, 90°; S-50, C-20, D-30, 12 m²; N_{tr}-8, N_{cry}-11; fs. 14 20110820/04; 1240 m, NE, 90°; S-60, C-10, D-30, 8 m²; N_{tr}-11, N_{cry}-11; ss. 15 20110820/08; 1143 m, SSW, 90°; S-50, C-25, D-30, 10 m²; N_{tr}-9, N_{cry}-10; fs. 16 20110810/01; 1240 m, NNE, 90°; S-60, C-10, D-30, 12 m²; N_{tr}-8, N_{cry}-7; fs. 17 20110814/04; 1375 m, SW, 85°; S-30, C-30, D-40, 8 m²; N_{tr}-11, N_{cry}-11; fs. 18 20110820/13; 1120 m, SSW, 85°; S-70, C-30, D-30, 20 m²; N_{tr}-14, N_{cry}-10; ss. 19 20110810/09; 1242 m, SE, 90°; S-60, C-20, D-30, 20 m²; N_{tr}-13, N_{cry}-9; fs. 20 20110823/04; 1292 m, NNE, 90°; S-40, C-20, D-30, 10 m²; N_{tr}-10, N_{cry}-6; fs. 21 20110820/05; 1126 m, W, 90°; S-60, C-30, D-40, 16 m²; N_{tr}-15, N_{cry}-8; fs. 22 20110820/07; 1140 m, ENE, 90°; S-60, C-20, D-30, 16 m²; N_{tr}-10, N_{cry}-13; ss. 23 20110820/09; 1150 m, NNW, 90°; S-50, C-30, D-40, 16 m²; N_{tr}-16, N_{cry}-9; fs.

On-line Supplement Table 4. *Seslerio autumnalis-Campanuletum tommasinianae*

1 20110831/05; 396 m, SE, 90°; S-70, C-30, D-1, 18 m²; N_{tr}-19, N_{cry}-6; ss. 2 20110831/06; 400 m, SSE, 90°; S-60, C-40, D-1, 10 m²; N_{tr}-19, N_{cry}-7; ss. 3 20110831/02; 420 m, SE, 85°; S-40, C-50, D-30, 6 m²; N_{tr}-19, N_{cry}-7; ss. 4 20110831/04; 404 m, S, 80°; S-40, C-40, D-40, 12 m²; N_{tr}-12, N_{cry}-14; fs. 5 20110831/01; 406 m, NW, 85°; S-50, C-30, D-40, 16 m²; N_{tr}-12, N_{cry}-14; fs. 6 20110831/03; 415 m, SW, 90°; S-40, C-30, D-40, 8 m²; N_{tr}-13, N_{cry}-8; fs. 7 20110810/02; 1250 m, SSW, 85°; S-50, C-25, D-25, 12 m²; N_{tr}-11, N_{cry}-9; ss. 8 20110708/01; 960 m, SE, 90°; S-80, C-20, D-10, 16 m²; N_{tr}-8, N_{cry}-12; fs. 9 20110708/06; 1033 m, ESE, 90°; S-65, C-30, D-5, 16 m²; N_{tr}-7, N_{cry}-8; fs. 10 20110708/02; 960 m, E, 90°; S-80, C-10, D-20, 16 m²; N_{tr}-10, N_{cry}-12; fs. 11 20110708/07; 1026 m, ESE, 90°; S-70, C-20, D-20, 16

m²; N_{tr}-7, N_{cry}-11; fs. **12** 20110708/05; 1005 m, SSE, 85°; S-50, C-30, D-30, 16 m²; N_{tr}-9, N_{cry}-8; fs. **13** 20110708/09; 1096 m, ENE, 90°; S-70, C-20, D-20, 16 m²; N_{tr}-16, N_{cry}-9; fs. **14** 20110707/18; 1146 m, NE, 85°; S-60, C-20, D-20, 6 m²; N_{tr}-16, N_{cry}-10; fs. **15** 20110708/03; 972 m, ESE, 90°; S-80, C-10, D-10, 16 m²; N_{tr}-5, N_{cry}-12; fs. **16** 20110810/03; 1244 m, E, 90°; S-60, C-20, D-20, 8 m²; N_{tr}-6, N_{cry}-9; ss. **17** 20110820/14; 1144 m, SSW, 90°; S-60, C-30, D-10, 9 m²; N_{tr}-8, N_{cry}-6; fs. **18** 20110814/01; 1355 m, E, 80°; S-60, C-30, D-10, 9 m²; N_{tr}-11, N_{cry}-6; ss. **19** 20110814/02; 1355 m, E, 90°; S-60, C-40, D-1, 4 m²; N_{tr}-9, N_{cry}-5; o. **20** 20110920/06; 828 m, ESE, 85°; S-60, C-30, D-30, 16 m²; N_{tr}-10, N_{cry}-16; ss. **21** 20110920/04; 857 m, ENE, 90°; S-60, C-20, D-20, 20 m²; N_{tr}-12, N_{cry}-15; fs. **22** 20110920/07; 827 m, NE, 90°; S-40, C-30, D-40, 20 m²; N_{tr}-8, N_{cry}-8; fs. **23** 20110920/02; 845 m, E, 90°; S-60, C-20, D-10, 16 m²; N_{tr}-16, N_{cry}-11; ss. **24** 20110920/03; 854 m, NE, 90°; S-60, C-30, D-30, 15 m²; N_{tr}-11, N_{cry}-16; fs. **25** 20110920/01; 845 m, NNE, 90°; S-60, C-30, D-30, 8 m²; N_{tr}-11, N_{cry}-16; fs. **26** 20110920/05; 841 m, ENE, 90°; S-60, C-20, D-30, 12 m²; N_{tr}-13, N_{cry}-15; ss. **27** 20110707/23; 1167 m, E, 90°; S-80, C-10, D-20, 12 m²; N_{tr}-8, N_{cry}-12; fs. **28** 20110708/10; 1055 m, E, 85°; S-40, C-30, D-40, 16 m²; N_{tr}-23, N_{cry}-11; fs. **29** 20110808/08; 1033 m, ESE, 90°; S-50, C-40, D-20, 16 m²; N_{tr}-11, N_{cry}-11; fs. **30** 20110810/08; 1236 m, E, 85°; S-40, C-40, D-30, 9 m²; N_{tr}-11, N_{cry}-13; fs. **31** 20110708/11; 1036 m, ESE, 90°; S-50, C-20, D-40, 16 m²; N_{tr}-11, N_{cry}-13; fs.

On-line Supplement 2 – taxa occurring once in On-line Supplement Tables 2–4

On-line Supplement Table 2 – 1 *Acer obtusatum* 1, *Euonymus verrucosus* +, *Pyrus piraster* +; 2 *Fraxinus ornus* 1, *Tortella tortuosa* var. *brevifolia* 3; 3 *Tortella tortuosa* var. *fragillifolia* 3; 4 *Carex digitata* +, *Lilium bulbiferum* 1, *Fissidens taxifolius* subsp. *taxifolius* 2; 5 *Euphorbia* sp. +, *Lotus corniculatus* 1, *Rhamnus fallax* +, *Tortella muralis* var. *muralis* 2; 6 *Sedum sexangulare* 2, *Tortella tortuosa* var. *fragillifolia* 1; 10 *Laburnum alpinum* 1, *Veratrum album* 2; 11 *Melica ciliata* 1; 12 *Dorycnium germanicum* +; 13 *Festuca* sp. +; 20 *Juniperus communis* subsp. *communis* +; 31 *Genista sylvestris* 2; 35 *Daphne alpina* subsp. *scopoliana* 1; 36 *Cuscuta epithimum* 1; 37 *Potentilla caulescens* 1; 40 *Grimmia pulvinata* 2; 44 *Campylium elodes* 1; 49 *Neckera complanata* 1; 51 *Epipactis atrorubens* 1, *Erigeron polymorphus* 1; 52 *Poa nemoralis* 1, *Jungermannia subulata* 1; 53 *Bromus erectus* agg. 1, *Clematis vitalba* 1, *Ortotrichum* sp. 2, *Eurhynchium flotowianum* 2; 58 *Adenostyles glabra* +, *Asplenium viride* 1, *Cystopteris fragilis* 1, *Distichium capillaceum* 3.

On-line Supplement Table 3 – 2 *Mnium stellare* 3; 3 *Aconitum variegatum* 2, *Sedum hispanicum* 3, *Apometzgeria pubescens* 4; *Weissia* sp. 1, *Fraxinus ornus* 1, *Allium carinatum* subsp. *pulchellum* +, *Arabis turrita* +, *Asparagus acutifolius* 1, *Coronilla emerus* subsp. *emeroides* 1, *Hedera helix* 3, *Tamus communis* 1, *Eucladium verticillatum* 3, *Eurhynchium striatum* 3, *Plagiomnium cuspidatum* 4, *P. undulatum* 4, *Scorpiurum circinatum* 3, *Thamnobryum alopecurum* 4, *Thuidium tamariscinum* 4; 5 *Ortotrichum anomalum* 3; 6 *Carex digitata* 1, *Aruncus dioicus* +, *Calamintha grandiflora* 2; 7 *Tortella nitida* 3, *Anthriscus fumarioides* 2; 9 *Ortotrichum cupulatum* 1; 10 *Frullania dilatata* 1; 13 *Senecio rupestris* 2; 14 *Thalictrum minus* 2; 15 *Rosa dumalis* +, *Brachythecium starkei* 1; 17 *Scapania* sp. 2, *Homalothecium lutescens* 2; 18 *Hypnum cupressiforme* var. *cupressiforme* 1; 19 *Veratrum album* 1, *Orthothecium intricatum* 3; 20 *Saxifraga paniculata* 2, *Hieracium* sp. 1; 21 *Fagus sylvatica* +, *Eurhynchium schleicheri* 1; 22 *Metzgeria conjugata* 2; 23 *Polystichum aculeatum* 1, *Thalictrum aquilegifolium* 1.

On-line Supplement Table 4 – 1 *Parietaria judaica* 1, *Rubus ulmifolius* 1; 2 *Campanula fenestrellata* subsp. *istriaca* 1, *Crepis chondrylloides* 1, *Helichrysum italicum* 1, *Syntrichia montana* 3; 3 *Clematis vitalba* 1, *Aethionema saxatile* 1, *Centaurea rupestris* +, *Cotinus coggygria* 4, *Peucedanum cervaria* +, *Rubus* sp. 1; 4 *Quercus pubescens* +, *Rosa arvensis* +; 5 *Pyrus piraster* +; 6 *Lonicera etrusca* 2; 7 *Silene saxifraga* subsp. *hayekiana* 2; 8 *Frullania dilatata* 1; 9 *Geranium macrorrhizum* 2, *Eurhynchium flotowianum* 3; 12 *Campanula persicifolia* 2; 13 *Fagus sylvatica* +, *Cystopteris montana* 1; 14 *Thalictrum aquilegifolium* +, *Galium mollugo* 2, *Cnidium silaifolium* 1, *Koeleria pyramidata* 1; 15 *Preissia quadrata* 2; 17 *Pedinophyllum interruptum* 2, *Campanula justiniana* 2, *Orthothecium intricatum* 2; 18 *Hieracium bupleuroides* 2, *Leontodon hispidus* 1, *Linum catharticum* 3; 19 *Asplenium viride* 2, *Rosa pendulina* 2; 20 *Micromeria thymifolia* 3, *Allium ericetorum* 2; 21 *Weissia controversa* var. *controversa* 2, *Barbula* sp. 2; 22 *Salvia glutinosa* +; 23 *Rosa* sp. +, *Hypnum jutlandicum* 3; 24 *Brachythecium salebrosum* 2; 25 *Hypnum cupressiforme* var. *lacunosum* 2; 26 *Hypnum andoi* 3, *Pterigynandrum filiforme* 3, *Scapania aequiloba* 3, *Weissia brachycarpa* 3; 28 *Veratrum album* 1, *Arabis hirsuta* 1, *Euphorbia carniolica* 1, *Sedum maximum* 1, *Tanacetum corymbosum* 1; 29 *Anomodon attenuatus* 3, *Acer obtusatum* 1, *Hypericum montanum* (?) 1; 30 *Clematis alpina* 2; 31 *Saxifraga rotundifolia* 4, *Cirriophyllum crassinervium* 3, *Calamintha grandiflora* 1.