

CONTRIBUTION TO THE KNOWLEDGE ON THE FLORA OF MT GOLESH, CENTRAL KOSOVO

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This paper presents the results of a detailed floristic study conducted during three consecutive years (2015-2017) in the central part of Kosovo, in the mountain of Golesh. The studied mountainous area is unique by reason of its ecosystems and has a high degree of diversity of regional flora. Because of its specific harsh environment the area as a whole contains a considerable amount of endemic and rare plant taxa. Therefore, the flora of different habitats of the area has been properly investigated and must be adequately protected. All recorded taxa in this study correspond to the collected voucher specimens. Conservation statuses for endangered taxa were also proposed based on the relevant literature data. As a result of the research, 62 families, 199 genera, and 295 taxa (species and infraspecific taxa) of vascular plants were recorded, including eight endemic plant taxa and, in total, twelve endangered plant taxa. Growing on Mt Golesh are one critically endangered (*Klasea radiata*), three endangered (*Narcissus poeticus* subsp. *radiiflorus*, *Haplophyllum boisserianum* and *Daphne cneorum*), two vulnerable (*Centaurea albertii* and *Galatella albanica*), two near threatened (*Paramoltkia doerfleri* and *Potentilla visianii*) and four least concern plant taxa (*Halacsya sendtneri*, *Linum flavum*, *Forsythia europaea* and *Polygala doerfleri*), indicating that this area has a high conservation value and the necessity for research.

Key words: conservation, endemism, serpentine flora, plant systematics

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Rad predstavlja rezultate detaljnog florističkog istraživanja provedenog tijekom tri uzastopne godine (2015-2017) na planini Golesh u središnjem dijelu Kosova. Proučavano planinsko područje je jedinstveno zbog svog ekosustava i i posjeduje veliki stupanj raznolikosti regionalne flore. Zbog oštrih uvjeta okoliša na tom području raste značajan broj endemskih i rijetkih vrsta. Stoga je flora različitih staništa tog područja dobro istražena i mora biti adekvatno zaštićena. Sve zabilježene svojite ovog rada imaju i dokaz u prikupljenim primjercima. Za sve ugrožene svojite na temelju relevantnih literaturnih podataka predlaže se zaštita. Kao rezultat istraživanja zabilježene su 62 porodice, 199 rodova i 295 svojiti (vrste i podvrste) vaskularnih biljaka, uključujući osam endemskih i 12 ugroženih svojiti. Na planini Golesh raste jedna kritično ugrožena (*Klasea radiata*), tri ugrožene (*Narcissus poeticus* subsp. *radiiflorus*, *Haplophyllum boisserianum* i *Daphne cneorum*), dvije osjetljive (*Centaurea albertii* i *Galatella albanica*), tdvije skoro ugrožene (*Paramoltkia doerfleri* i *Potentilla visianii*) i četiri najmanje zabrinjavajuće svojite (*Halacsya sendtneri*, *Linum flavum*, *Forsythia europaea* i *Polygala doerfleri*), što pokazuje vrijednost zaštite ovog područja i potrebu njegovog istraživanja.

Ključne riječi: zaštita, endemizam, serpentina flora, biljna sistematika

INTRODUCTION

The mountain of Golesh (with a surface area of 22.2 km²) belongs to the central mountain chain of Carraleva Mountains in Kosovo (MARKOVIĆ, 1990) and its highest peak rises 1019 m above sea level (a.s.l). It is the highest mountain system in the central part of Kosovo (ÇAVOLLI, 1997). Most of this mountain area (70%)

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is located at altitudes from 600 to 980 m a.s.l. – while the upper part reaches the altitude of more than 980 m a.s.l. Golesh is known as a massif predominantly made out of harzburgite rock (which consists mainly of two minerals: olivine and low calcium peroxine) and a high percentage of ultramafic (serpentinite) bedrock (SAHITI, 2010; LABUS, 1973). This composition represents a challenging environment in chemical, physical and biotic terms for plants to grow and develop in drought, the presence of heavy metals and limited sources of basic nutrients (HERATH *et al.*, 2014; BERISHA *et al.*, 2014; REXHEPI *et al.*, 2012; KAZAKOU *et al.*, 2008; MILLAKU *et al.*, 2008; KRUCKEBERG, 2006; KRASNIQI & MILLAKU, 2007). From the pedological aspect, the surveyed area is made of loamy deluvium, brownized red soil on compact limestone, reddish-brown loamy soil on reddish sediments and moderately deep brown soil on metamorphic rocks (PAVIĆEVIĆ *et al.*, 1974).

In climatic terms, the studied site is characterized by harsh cold winters and dry and hot summers – with average annual temperature of 10° C (Çavolli, 1997). Warmest months are July and August with the average temperature reaching 21°C, while the coldest month is January with an average temperature of –1.5° C, making it a typical continental climate (ANON., 2018).

For Mt Mt Golesh 144 taxa of vascular plants were reported (KRASNIQI *et al.*, 2015). Although REXHEPI (1979, 1985) recorded c. 139 plant taxa in the Mt Golesh area, detailed floristic research as well as research on endemics is still in progress (MILLAKU *et al.*, 2017) and new records for the distribution of plant taxa were made during our taxonomic revision of the given studied area.

Still, not a single study has ever been published concerning the floristic diversity of Mt Golesh, offering any plant list. The whole mountain stretches 5.5 km from south to north and 5.4 km from its western point to the eastern side along the municipalities of Fushë-Kosova, Drenas and Lipjan.

The most vital zone from the biodiversity point of view is the upper part of the mountain (around the antenna – a triangle between points: 9, 11, 14 and 24 from Tab. 1), where the habitats of endangered plant taxa are located. In this study, we have made efforts to review the biodiversity situation by listing all the sampled plant taxa. We aimed to **a)** compile a detailed list of all present taxa; **b)** review the threat status of all rare and endangered plant taxa present in this mountain; and **c)** provide accurate data concerning their overall distribution across the mountain. An accurate identification of plant taxa was based on the collected herbarium specimens, which were used as unique evidence and crucial reference material for the regional distribution. To achieve our objective of reviewing the conservation status of the endemic and endangered taxa present, we relied on the data provided by the Red Book of Vascular Flora of the Republic of Kosovo (MILLAKU (ed.), 2013).

MATERIAL AND METHODS

We conducted our field surveys at 50 sites, starting from April to September in three consecutive years 2015-2017 (Tab. 1). A total of approximately 150 sampling sites were visited. Sites were selected randomly, ensuring that no particular portion of the sampling frame was either favoured or overlooked. In order for us to cover

Tab. 1. Delineation of collecting sites for Goleš mountain area.

No.	Date	Coordinates	Altitude	Exposition	Habitat type
1	21.04.2015	42°35.610 N; 020°59.620 E;	648 m	NE	Forest
2	10.05.2015	42°34.476 N; 020°58.942 E;	958 m	NW	Grassland
3	15.05.2015	42°34.226 N; 020°59.395 E;	896 m	NE	Shrubs
4	30.05.2015	42°33.860 N; 020°58.647 E;	971 m	SE	Grassland
5	10.06.2015	42°32.993 N; 020°58.835 E;	781 m	W	Shrubs and forest
6	10.06.2015	42°34.355 N; 020°58.450 E;	902 m	N	Grassland
7	20.06.2015	42°34.500 N; 020°58.879 E;	854 m	NW	Grassland
8	20.06.2015	42°35.229 N; 020°58.645 E;	737 m	NE	Forest
9	11.07.2015	42°34.085 N; 020°59.581 E;	957 m	E	Grassland
10	24.07.2015	42°34.406 N; 020°59.155 E;	885 m	NE	Shrubs and forest
11	24.07.2015	42°34.520 N; 020°58.375 E;	990 m	NW	Grassland
12	29.07.2015	42°32.224 N; 020°58.381 E;	698 m	SW	Grassland
13	02.08.2015	42°33.048 N; 020°58.157 E;	744 m	S	Forest
14	02.08.2015	42°34.218 N; 020°58.020 E;	995 m	SW	Grassland
15	15.08.2015	42°34.138 N; 020°59.768 E;	983 m	E	Shrubs
16	02.09.2015	42°34.383 N; 020°57.356 E;	589 m	W	Grassland
17	19.04.2016	42°34.561 N; 020°58.352 E;	921 m	NW	Grassland
18	09.05.2016	42°34.485 N; 020°59.752 E;	781 m	N	Forest
19	15.05.2016	42°34.749 N; 020°59.025 E;	792 m	W	Shrubs and forest
20	22.05.2016	42°34.546 N; 020°58.024 E;	919 m	W	Grassland
21	03.06.2016	42°34.342 N; 020°59.873 E;	779 m	NE	Grassland
22	03.06.2016	42°33.796 N; 021°00.017 E;	762 m	E	Grassland
23	15.06.2016	42°34.638 N; 021°57.875 E;	719 m	SE	Shrubs
24	15.06.2016	42°34.131 N; 020°58.906 E;	967 m	NW	Grassland
25	05.07.2016	42°34.356 N; 020°58.650 E;	928 m	N	Shrubs
26	12.07.2016	42°33.648 N; 020°59.739 E;	736 m	S	Grassland
27	12.07.2016	42°33.906 N; 020°58.381 E;	842 m	S	Grassland
28	24.07.2016	42°34.643 N; 020°58.757 E;	785 m	W	Forest
29	03.08.2016	42°33.368 N; 020°59.187 E;	879 m	SW	Grassland
30	03.08.2016	42°35.281 N; 020°58.320 E;	705 m	W	Forest
31	18.08.2016	42°33.270 N; 020°59.484 E;	774 m	NE	Grassland
32	02.09.2016	42°34.324 N; 020°57.426 E;	802 m	N	Grassland
33	15.09.2016	42°34.672 N; 020°59.566 E;	739 m	NW	Shrubs and forest
34	20.04.2017	42°35.330 N; 020°58.459 E;	706 m	N	Forest
35	11.05.2017	42°34.256 N; 020°58.553 E;	999 m	NW	Grassland
36	11.05.2017	42°33.836 N; 020°59.307 E;	871 m	SW	Grassland
37	25.05.2017	42°34.694 N; 020°57.899 E;	720 m	W	Shrubs and forest
38	30.05.2017	42°33.968 N; 020°58.044 E;	841 m	SE	Grassland
39	12.06.2017	42°33.107 N; 020°58.711 E;	750 m	S	Shrubs
40	12.06.2017	42°32.805 N; 020°59.393 E;	762 m	E	Grassland
41	22.06.2017	42°33.304 N; 020°59.215 E;	889 m	E	Grassland
42	30.06.2017	42°33.361 N; 020°59.028 E;	811 m	W	Grassland
43	06.07.2017	42°35.286 N; 020°59.903 E;	666 m	NE	Forest
44	06.07.2017	42°33.780 N; 021°00.060 E;	709 m	SE	Grassland
45	20.07.2017	42°34.174 N; 020°57.233 E;	753 m	SW	Grassland
46	20.07.2017	42°34.016 N; 020°58.776 E;	941 m	S	Grassland
47	26.07.2017	42°34.874 N; 020°56.626 E;	680 m	W	Forest
48	15.08.2017	42°34.255 N; 020°59.089 E;	970 m	NW	Grassland
49	01.09.2017	42°34.859 N; 020°59.166 E;	780 m	NW	Shrubs
50	17.09.2017	42°33.645 N; 020°58.583 E;	825 m	SE	Grassland

all different types of habitats at different elevations and expositions, we sampled plots from forests, shrubs as well as grasslands (starting from 648 m a.s.l. to 999 m a.s.l.). Life forms as well as their chorological spectrum follow PIGNATTI (1982), DIMOPOULOS et al. (2013) and RAUNKIAER (1934). Plots as shown in Tab. 1 in many cases included several nearby localities within the given site.

The plant species nomenclature followed the Euro Med Checklist (EURO+MED, 2006). All the collected herbarium materials were identified based on the Flora Europaea (TUTIN et al., 1964 - 1980), Flora of Albania (PAPARISTO et al., 1988; QOSJA et al., 1992-1996; VANGJELI et al., 2000), Flora of Serbia (JOSIFOVIĆ (ed.), 1970-1977; STEVANOVIĆ (ed.), 2012; SARIĆ & DIKLIĆ (eds.), 1986), Flora of Bulgaria (JORDANOV et al., 1963-1979; VELČEV et al., 1982), Flowers of Greece and the Balkans (POLUNIN, 1980) and Baumführer Europa (SPOHN, 2011). Collected plants were processed into voucher specimens and deposited in the herbarium of the Faculty of Natural Sciences and Mathematics, University of Prishtina.

RESULTS AND DISCUSSION

In this study we determined the vascular plant diversity of Mt Golesh. The collected plants belong to 62 families, 199 genera and 295 taxa (species and infraspecific units) - (App. 1). Families with the highest number of taxa were Asteraceae (34 taxa), Fabaceae (25 taxa), Rosaceae (21 taxa), Poaceae and Caryophyllaceae (each 18 taxa).

Within the investigated region we recorded eight endemic taxa, out of which six are Balkan endemics (*Halacsya sendtneri* (Boiss.) Dörfl., *Paramoltkia doerfleri* (Wettst.) Greuter & Burdet, *Linum flavum* L., *Forsythia europaea* Degen & Bald., *Polygala doerfleri* Hayek, *Potentilla visianii* Pančić, *Haplophyllum boisserianum* Vis. et Pančić and *Daphne cneorum* L.) and two are stenoendemic taxa for Kosovo (*Centaurea albertii* Rexhepi and *Galatella albanica* Degen). We also recorded and evaluated 12 endangered taxa. (App. 1, Tab. 2, App. 2 & Fig. 1).

Tab. 2. List of endemic and endangered plant species recorded in the studied area of Golesh.

No	Family name	Scientific name	Status note
1.	Amarylidiaceae	<i>Narcissus poeticus</i> subsp. <i>radiiflorus</i> (Salisb.) Baker.	Endangered
2.	Asteraceae	<i>Centaurea albertii</i> Rexhepi	Vulnerable Stenoendemic
3.	Asteraceae	<i>Galatella albanica</i> Degen	Vulnerable Stenoendemic
4.	Asteraceae	<i>Klasea radiata</i> (Waldst. & Kit.) Á. Lö. & D. Lö.	Critically Endangered (New locality)
5.	Boraginaceae	<i>Halacsya sendtneri</i> (Boiss.) Doerfl.	Least Concern Endemic
6.	Boraginaceae	<i>Paramoltkia doerfleri</i> (Wettst.) Gre. & Burd.	Near Threatened Endemic
7.	Linaceae	<i>Linum flavum</i> L.	Least Concern
8.	Oleaceae	<i>Forsythia europaea</i> Degen & Bald.	Least Concern Endemic
9.	Polygalaceae	<i>Polygala doerfleri</i> Hayek	Least Concern Endemic
10.	Rosaceae	<i>Potentilla visianii</i> Pančić	Near Threatened Endemic
11.	Rutaceae	<i>Haplophyllum boisserianum</i> Vis. et Panc.	Endangered Endemic
12.	Thymelaceae	<i>Daphne cneorum</i> L.	Endangered

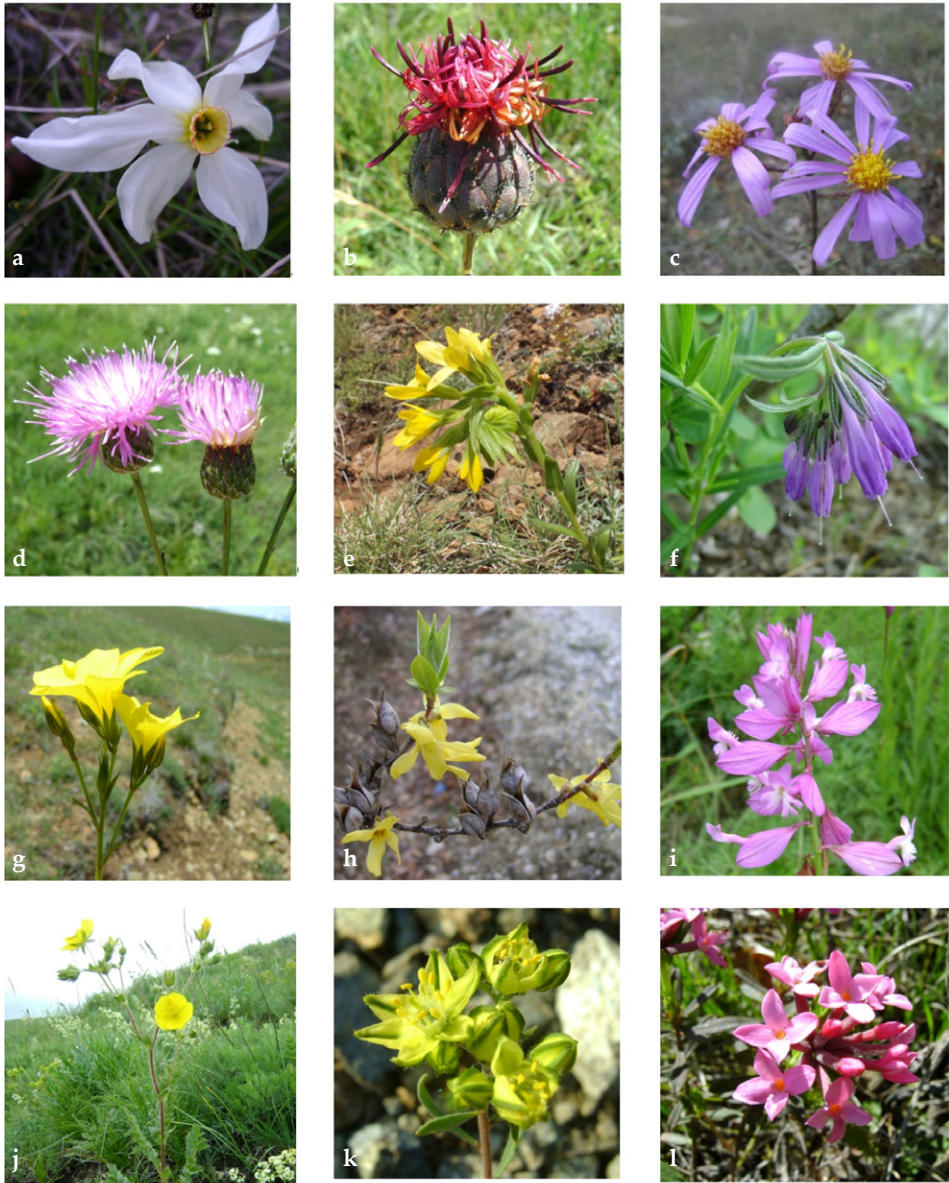


Fig. 1. a) *Narcissus poeticus* subsp. *radiiflorus* (Salisb.) Baker., b) *Centaurea albertii* Rexhepi, c) *Galatella albanica* Degen, d) *Klasea radiata* (Waldst. & Kit.) Á. Löve & D. Löve, e) *Halacsya sendtneri* (Boiss.) Doerfl., f) *Paramoltkia doerfleri* (Wettst.) Greuter & Burd., g) *Linum flavum* L., h) *Forsythia europaea* Degen & Bald., i) *Polygala doerfleri* Hayek, j) *Potentilla visianii* Pančić, k) *Haplophyllum boissertianum* Vis. et Pančić, l) *Daphne cneorum* L.

On these unique serpentinite-base grassland habitats we registered the presence of the following eight endemic plant taxa (Tab. 2): *Centaurea albertii* Rexh., *Galatella albanica* Degen., *Halascya sendtneri* (Boiss.) Dörf., *Paramoltkia doerfleri* (Wettst.) Gre. & Burd., *Forsythia europaea* Degen & Bald., *Polygala doerfleri* Hayek., *Potentilla visianii* Pančić and *Haplophyllum boisserianum* Vis. et Panč.

Additionally, *Narcissus poeticus* subsp. *radiiflorus* (Salisb.) Baker., *Klasea radiata* (Waldst. & Kit.) Á. Löve & D. Löve, *Linum flavum* L. and *Daphne cneorum* L. are all listed in the Red Data Book of Vascular Flora of Kosovo. They are characterized generally with a wider distribution in the mountains, but their habitats are limited to certain areas and ecological niches. Their populations mostly consisted of very few mature individuals in each habitat and their habitats are considered vulnerable to being negatively affected by the human factor. Our investigation shows that 12 taxa recorded in this survey are under a certain threat category or level (Tab. 3). Among them, *Klasea radiata* is a Critically Endangered (CR) species, *Narcissus poeticus* subsp. *radiiflorus*, *Haplophyllum boisserianum* and *Daphne cneorum* are Endangered (E) species, *Centaurea albertii* and *Galatella albanica* are Vulnerable (VU) species, *Potentilla visianii* and *Paramoltkia doerfleri* are Near Threatened (NT) species, while *Linum flavum*, *Polygala doerfleri*, *Forsythia europaea* and *Halascya sendtneri* are categorized in the Least Concern (LC) threat category – based on IUCN Red List criteria (MILLAKU (ed.), 2013).

The flora is dominated by the European floral element (79 taxa), followed by Euro-Asiatic (74), Sub-Mediterranean (34), Balkan (29), Mediterranean (29), Pontic (12) etc. (Fig. 2). The high contribution of European and Euro-Asiatic floristic elements suggests that floristically it was most strongly influenced from the direction of the Alps as well as the Carpathians and Asia Minor (STEVANOVIĆ, 1996). Anyhow, as observed, it is obvious that various floristic elements meet and overlap in these mountain ranges in the central part of Kosovo.

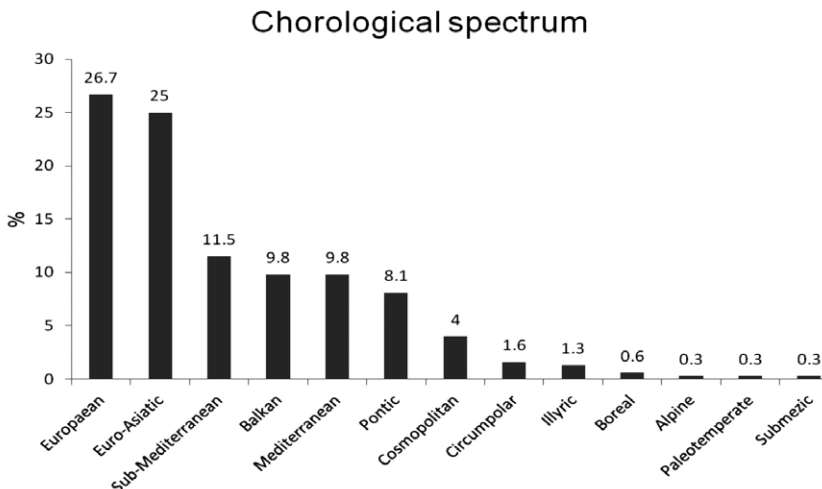


Fig. 2. Chorological spectrum of the total flora from Mt Golesh

Families with the highest number of taxa (Fig. 3) were Asteraceae (12%), Fabaceae (9%), Rosaceae (7%), Poaceae and Caryophyllaceae (6% each).

The data presented about endemic and endangered taxa, as well as their conservation status based on literature sources and proven on site with our results, strongly confirm the importance that this mountain has for Kosovo's floristic biodiversity. Altogether eight taxa were endemic (2.7%), and 12 were endangered (4%).

The life-form spectrum indicates the predominance of Hemicryptophytes (153 taxa, 53%), with a relevant presence of Geophytes (45 taxa, 15%), Phanerophytes (34 taxa, 12%) and Therophytes (34 taxa, 12%) (Fig. 4).

Spectrum of plant families

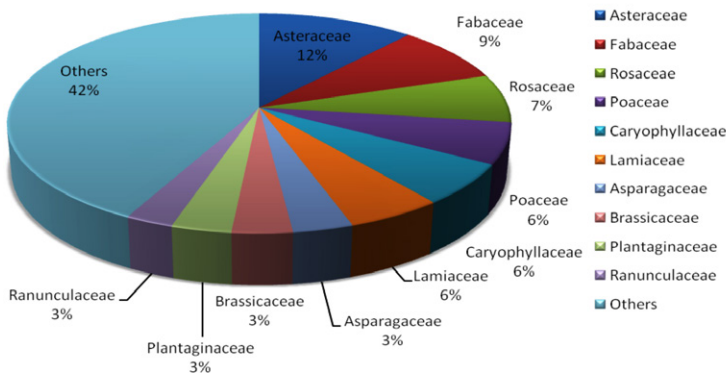


Fig. 3. Spectrum of the most dominant plant families in the studied area of Golesh.

Life form spectrum

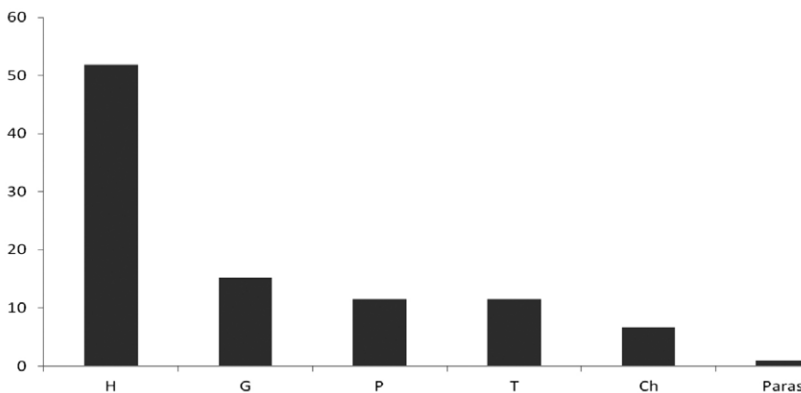


Fig. 4. Life form spectrum of plant taxa recorded on Golesh.

CONCLUSIONS

Mt Golesh represents a typical hilly to mountainous landscape of mosaic plant assemblages and diversity, with high presence of serpentinite bedrock of the massif. This detailed floristic documentation of 295 taxa, 199 genera and 62 plant families represents an important contribution towards the knowledge of flora of the Kosovo.

It was noticed that certain endemic taxa are very fragile here and the area is heavily disturbed by humans as well as by grazing animals. At the very top of the mountain there is a military compound and near its border fences (N & S) we noticed the presence of natural habitats for *Centaurea albertii* Rexhepi – a stenoendemic plant taxon. We suggest that this area (Tab. 1, area between collections sites no. 24, 35 and 48) should be protected and also we point out the need for increasing the general awareness of local people about the importance of conserving this environment.

From the floristic point of view, Golesh is particularly important due to the presence of eight endemic taxa, twelve endangered taxa and the outstanding diversity of its flora. Additionally, natural habitats of *Forsythia europaea* here represent the northernmost natural distributional limit of the endemic taxon.

The habitat of the stenoendemic *Galatella albanica* is characterized by a very fragile population consisting of very few mature individuals that are also naturally isolated. It was recorded on the serpentinite grasslands of the eastern slope – and taking into the account also the information of the taxa overall distribution and its threat situation in Kosovo, it should remain protected by law (already listed in the Red Book of Vascular Flora of the Republic of Kosovo - VU).

Haplophyllum boisserianum is an endangered plant taxon in Kosovo. Because of our detailed floristic research into this area we recorded a new locality of its natural distribution. for *H. boisserianum* was growing on dry serpentine grasslands of the western slopes of Mt Golesh.

The results of this work will considerably support the conservation activities of the flora as well as natural habitats in Kosovo and additionally will update the floristic database concerning the composition and general distribution of plant taxa.

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Appendix I. Floristic composition of Golesh with distribution & conservation notes

Nr.	Life form	Family Taxon	Conservation note	Herbarium no. / (Habitat type & Expositions on site)	Floristic element
Aspleniaceae					
1.	H	<i>Asplenium adiantum-nigrum</i> subsp. <i>serpentini</i> (Tausch) Heufl. [<i>Asplenium cuneifolium</i> Viv.]	\	GOL005 / (Forest & forest clearings)	EUR
2.	H	<i>Asplenium ceterach</i> L. [<i>Ceterach officinarum</i> DC.]	\	GOL006 / Forest & shrubs (N, E, W, S)	EUA
3.	Ch(H)	<i>Asplenium septentrionale</i> L. Hoffman.	\	GOL007 / Rocky pastures (N, E)	EUA
4.	H	<i>Asplenium trichomanes</i> L.	\	GOL008 / Forest / on rocks. (W)	EUA
Polypodiaceae					
5.	Ch	<i>Polypodium vulgare</i> L.	\	GOL073 / (Forest & forest clearings)	EUA
Cupressaceae					
6.	P	<i>Juniperus communis</i> L.	\	GOL056 / Forest & shrubs (N, E, W, S)	CRP
7.	P	<i>Juniperus oxycedrus</i> L.	\	GOL057 / Forest & shrubs (N, E, W, S)	MED
Araceae					
8.	G	<i>Arum maculatum</i> L.	\	GOL029 / Forest & shrubs (N, E, W, S)	EUA
Colchicaceae					
9.	G	<i>Colchicum autumnale</i> L.	\	GOL119 / Grasslands (N, E, W, S)	EUR
Liliaceae					
10.	G	<i>Erythronium dens-canis</i> L.	\	GOL125 / (Forest & forest clearings)	EUR
11.	G	<i>Fritillaria mesanensis</i> Raf.	\	GOL126 / Grasslands (N, E, W, S)	EUR
12.	G	<i>Tulipa sylvestris</i> L.	\	GOL127 / Grasslands (N, E, W)	MED
Asparagaceae					
13.	G	<i>Asparagus tenuifolius</i> Lam.	\	GOL088 / (Forest & forest clearings)	MED
14.	G	<i>Convalaria majalis</i> L.	\	GOL084 / (Forest & forest clearings)	SMD
15.	G	<i>Muscari botryoides</i> (L.) Miller.	\	GOL092 / Grasslands (W)	SMD

16.	G	<i>Muscari comosum</i> (L.) Mill.	\	GOL098 / Forest & forest clearings, rocky grasslands (E)	EUR
17.	G	<i>Muscari racemosum</i> (L.) Lam. et DC.	\	GOL111 / Forest & shrubs, rocky grasslands (N, E, S)	MED
18.	G	<i>Ornithogalum pyramidale</i> L.	\	GOL156 / Grasslands (E)	EUR
19.	G	<i>Ornithogalum umbellatum</i> L.	\	GOL157 / Forest & shrubs (N, E, S, W)	EUR
20.	G	<i>Polygonatum odoratum</i> (Mill.) Druce	\	GOL161 / (Forest & forest clearings)	EUA
21.	G	<i>Prospero autumnale</i> (L.) Speta [<i>Scilla autumnalis</i> L.]	\	GOL107 / Grasslands (N, E, S, W)	MED
22.	G	<i>Scilla bifolia</i> L.	\	GOL033 / Forest & forest clearings	MED
Orchidaceae					
23.	G	<i>Anacamptis morio</i> (L.) R. M. B. Pr. & M.W. Ch. [<i>Orchis morio</i> L.]	\	GOL231 / Grasslands (N, E, S, W)	MED
24.	G	<i>Platathera bifolia</i> (L.) L. C. M. Richard.	\	GOL235 / Forest & forest clearings	EUA
Iridaceae					
25.	G	<i>Crocus biflorus</i> Mill.	\	GOL222 / Grasslands (N, E, S, W)	MED
26.	G	<i>Crocus chrysanthus</i> Herb	\	GOL223 / Grasslands (N, E, S, W)	BLK
27.	G	<i>Iris graminea</i> L.	\	GOL224 / Grasslands (N, E)	MED
28.	G	<i>Iris pumila</i> L.	\	GOL225 / Grasslands (E,W)	EUR
29.	H	<i>Iris reichenbachii</i> Heuff.	\	GOL226 / Grasslands (N, S)	BLK
Amaryllidaceae					
30.	G	<i>Allium flavum</i> L.	\	GOL216 / Grasslands (N, E, S, W)	EUA
31.	G	<i>Allium moschatum</i> L.	\	GOL217 / Grasslands (W)	EUR
32.	G	<i>Allium sphaerocephalon</i> L.	\	GOL218 / Grasslands (N, E, S, W)	EUA
33.	G	<i>Narcissus poeticus</i> subsp. <i>radiiflorus</i> (Salisb.) Baker.	EN	GOL219 / Grasslands (E)	EUR
Juncaceae					
34.	G	<i>Luzula forsteri</i> (Sm.) DC	\	GOL163 / Forest & forest clearings. Shrubs. (N, E, S, W)	MED
35.	H	<i>Luzula multiflora</i> (Ehrh.) Lej. [<i>L. campestris</i> L. subsp. <i>multiflora</i> (Reitz.) Buchenau]	\	GOL164 / Grasslands (N, E, S, W)	CSM
Cyperaceae					
36.	H	<i>Carex caryophyllea</i> Latuorr.	\	GOL062 / Grasslands (N, E, S, W)	EUA
37.	G	<i>Scirpoides holoschoenus</i> (L.) Soják [<i>Scirpus holoschoenus</i> L.]	\	GOL063 / Grasslands (N, E, W)	MED
Poaceae					
38.	T	<i>Aegilops triuncialis</i> L.	\	GOL180 / Grasslands (N, E, S, W)	EUR
39.	H	<i>Agropyron cristatum</i> subsp. <i>pectinatum</i> (M. Bieb.) Tzvelev	\	GOL181 / Grasslands (E, S, W)	PAL
40.	H	<i>Brachypodium sylvaticum</i> (Hudson) Beauv	\	GOL182 / Forest & shrubs	EUA
41.	H	<i>Briza media</i> L.	\	GOL183 / Grasslands (N, E, S)	EUA
42.	H	<i>Bromus erectus</i> Huds. subsp. <i>fibrosus</i> (Hack.) Stoj. et Stef.	\	GOL184 / Grasslands (N, E, W)	SMD
43.	T	<i>Bromus squarrosus</i> L.	\	GOL185 / Grasslands (N, E, S, W)	MED
44.	H	<i>Chrysopogon gryllus</i> (L.) Trin.	\	GOL186 / Grasslands (N, E, S, W)	MED
45.	G	<i>Cynodon dactylon</i> (L.) Pers.	\	GOL187 / Grasslands (N, E, S, W)	CSM
46.	H	<i>Dactylis glomerata</i> L.	\	GOL188 / Forest clearings. Grasslands. (N, S)	EUA
47.	G	<i>Elytrigia repens</i> (L.) Nevski [<i>Agropyrum repens</i> (L.) Beauv.]	\	GOL189 / Grasslands (N)	EUA
48.	H	<i>Koeleria macrantha</i> (Ledeb.) Schult. [<i>Koeleria gracilis</i> Pers.]	\	GOL190 / Grasslands (W)	EUA
49.	H	<i>Melica ciliata</i> L.	\	GOL191 / Grasslands. Forests. Shrubs. (N, E, W)	EUR
50.	G	<i>Melica uniflora</i> Retz.	\	GOL192 / Forest & shrubs. (N, E, S, W)	EUR
51.	H	<i>Phleum pratense</i> L.	\	GOL193 / Grasslands. (N, E, S, W)	EUA
52.	H	<i>Poa bulbosa</i> L.	\	GOL194 / Forest clearings. Grasslands. (N, E, S, W)	EUA
53.	T	<i>Sclerochloa dura</i> (L.) Beauv.	\	GOL195 / Grasslands (W)	MED

54.	H	<i>Stipa pulcherrima</i> K. Koch. [<i>S. pennata</i> subsp. <i>mediterranae</i> (Trin. et Rupr.) Asch. et Graebn.]	\	GOL196 / Rocky grasslands (N, E, S, W)	EUR
55.	H	<i>Taenatherum caput-medusae</i> subsp. <i>asperum</i> (Simonk.) Melderis [<i>Hordeum asperum</i> (Simk.) Deg.]	\	GOL197 / Grasslands (N)	EUA
Ranunculaceae					
56.	T	<i>Consolida regalis</i> S. F. Gray.	\	GOL064 / Grasslands (W)	EUR
57.	G	<i>Ficaria verna</i> Huds. [<i>Ranunculus ficaria</i> L.]	\	GOL065 / Forest & shrubs (N, E, S, W)	EUR
58.	H	<i>Helleborus odoros</i> Waldst. & Kit. ex Willd.	\	GOL066 / Forest & shrubs (N, E, S, W)	SMZ
59.	G	<i>Isopyrum thalictroides</i> L.	\	GOL067 / Forest & shrubs (N, E, S, W)	EUR
60.	H	<i>Ranunculus millefoliatus</i> Vahl.	\	GOL068 / Grasslands (N, E, S, W)	BLK
61.	G	<i>Ranunculus psilostachys</i> Griseb.	\	GOL069 / Forest & shrubs. (N, E, S, W)	BLK
62.	H	<i>Thalictrum aquilegifolium</i> L.	\	GOL070 / Forest & shrubs. (N, E, S, W)	EUR
63.	H	<i>Thalictrum minus</i> L.	\	GOL071 / Grasslands (N)	EUA
Berberidaceae					
64.	P	<i>Mahonia aquifolium</i> (Pursh.) Nut.	\	GOL009 / Forests. (W, S)	PNT
Papaveraceae					
65.	G	<i>Corydalis solida</i> (L.) Clairv.	\	GOL061 / Forest & shrubs. (N, E, S, W)	SMD
Crassulaceae					
66.	H	<i>Sedum acre</i> L.	\	GOL232 / Grasslands (N, S, W)	EUA
67.	H	<i>Sedum hispanicum</i> L.	\	GOL233 / Grasslands (W)	SMD
68.	H	<i>Sedum ochroleucum</i> Chaix	\	GOL234 / Grasslands (N, E, S, W)	SMD
Celastraceae					
69.	P	<i>Euonymus verrucosus</i> Scop.	\	GOL072 / Forests. Forests & shrubs.	EUR
Clusiaceae					
70.	H	<i>Hypericum barbatum</i> Jacq.	\	GOL030 / Grasslands (E)	BLK
71.	H	<i>Hypericum perforatum</i> L.	\	GOL031 / Grasslands (N, E, S)	CSM
72.	H	<i>Hypericum rumeliacum</i> Boiss.	\	GOL032 / Grasslands (N, E, S, W)	BLK
Violaceae					
73.	T	<i>Viola arvensis</i> Murray.	\	GOL081 / Grasslands (E, W)	EUR
74.	H	<i>Viola odorata</i> L.	\	GOL082 / Forests. Forests & shrubs.	SMD
75.	H	<i>Viola riviniana</i> Rehb.	\	GOL083 / Forests. Forests & shrubs.	EUA
Linaceae					
76.	H	<i>Linum flavum</i> L.	LC	GOL050 / Grasslands (W)	PNT
77.	H	<i>Linum perenne</i> L. [<i>L. extraaxillare</i> Kit.]	\	GOL051 / Grasslands (N, E, S, W)	EUR
78.	H	<i>Linum tenuifolium</i> L.	\	GOL052 / Grasslands (E)	EUR
79.	H	<i>Linum tauricum</i> Willd.	\	GOL053 / Grasslands (N, E, S, W)	EUR
Euphorbiaceae					
80.	H	<i>Euphorbia amygdaloides</i> L.	\	GOL010 / Forests. Forests & shrubs.	EUR
81.	H	<i>Euphorbia barrelieri</i> Savi var. <i>thesala</i> (Ferm.) K. Maly.	\	GOL011 / Grasslands (N, E, S, W)	BLK
82.	H	<i>Euphorbia cyparissias</i> L.	\	GOL012 / Forests. Grasslands. (E)	EUA
83.	H	<i>Euphorbia glabriflora</i> Vis.	\	GOL013 / Grasslands (N, E, S, W)	BLK
84.	G	<i>Mercurialis ovata</i> Sternb. et Hoppe.	\	GOL014 / Forests & shrubs	EUR
Fabaceae					
85.	H	<i>Astragalus glycyphyllos</i> L.	\	GOL240 / Forests. Forests & shrubs.	SMD
86.	H	<i>Astragalus onobrychis</i> L.	\	GOL241 / Grasslands (N, E, S, W)	EUR
87.	H	<i>Colutea arborecens</i> L.	\	GOL242 / Forests & shrubs.	MED
88.	Ch	<i>Cytisus hirsutus</i> L. [<i>Chamaecytisus hirsutus</i> (L.) Link.]	\	GOL243 / Forests. Grasslands (N, E, S, W)	SMD
89.	Ch	<i>Dorycnium pentaphyllum</i> Scop.	\	GOL244 / Grasslands (N, E, S, W)	SMD
90.	H	<i>Securigera elegans</i> (Pančić) Lassen [<i>Coronilla elegans</i> Pančić]	\	GOL245 / Forests & shrubs.	BLK

91.	Ch	<i>Genista tinctoria</i> L. [<i>Genista ovata</i> Waldst. et Kit.]	\	GOL246 / Forests & shrubs.	EUA
92.	Ch	<i>Genista pilosa</i> L.	\	GOL247 / Grasslands (E,W)	EUR
93.	Ch	<i>Genista sagittalis</i> L. [<i>Chamaespartium sagittale</i> (L.) P. Gibbs.]	\	GOL248 / Forests. Grasslands (N, E, W)	EUR
94.	H	<i>Hippocrepis comosa</i> L.	\	GOL249 / Grasslands (S, W)	SMD
95.	P(NP)	<i>Hippocrepis emerus</i> (L.) Lassen subsp. <i>emerus</i> [<i>Coronilla emerus</i> L. subsp. <i>emeroides</i> (Boiss. et Sprun.) Hayek]	\	GOL250 / Grasslands (N, E, W)	EUR
96.	G(H)	<i>Lathyrus niger</i> (L.) Bernh.	\	GOL251 / Forests & shrubs.	PNT
97.	T	<i>Lathyrus venetus</i> (Mill.) Wohlf.	\	GOL252 / Forests & shrubs.	SMD
98.	P(NP)	<i>Lembotropis nigricans</i> (L.) Griseb.	\	GOL253 / Forests & shrubs.	SMD
99.	H	<i>Lotus corniculatus</i> L.	\	GOL254 / Grasslands (N, E, S, W)	EUA
100.	H	<i>Medicago falcata</i> L.	\	GOL255 / Grasslands (N)	EUR
101.	H	<i>Onobrychis alba</i> (Waldst. & Kit.) Desv.	\	GOL256 / Grasslands (E,W)	EUR
102.	Ch	<i>Ononis spinosa</i> L.	\	GOL257 / Grasslands (N,E,S,W)	EUR
103.	G	<i>Trifolium alpestre</i> L.	\	GOL258 / Grasslands (N,E,W)	EUR
104.	T	<i>Trifolium arvense</i> L.	\	GOL259 / Grasslands (N,E,S,W)	EUR
105.	T	<i>Trifolium campestre</i> Schreb.	\	GOL260 / Grasslands (N,E)	EUR
106.	H	<i>Trifolium montanum</i> L.	\	GOL261 / Forest clearings. Shrubs.	PNT
107.	G	<i>Trifolium pignanii</i> Feuche et Chaub.	\	GOL262 / Forests & shrubs.	BLK
108.	H	<i>Trifolium pratense</i> L.	\	GOL263 / Grasslands (N,E,S)	EUA
109.	H	<i>Vicia cracca</i> L.	\	GOL264 / Forests & shrubs.	EUA
		Polygalaceae			
110.	H	<i>Polygala doerfleri</i> Hayek	LC End	GOL220 / Forests & shrubs. Grasslands. (N, E)	BLK
		Rosaceae			
111.	P(NP)	<i>Crataegus monogyna</i> L.	\	GOL130 / Forests & shrubs.	EUR
112.	H	<i>Filipendula vulgaris</i> Moench	\	GOL131 / Grasslands (N, E, S, W)	BOR
113.	H	<i>Fragaria vesca</i> L.	\	GOL132 / Forests & shrubs. Grasslands. (N)	EUR
114.	H	<i>Geum urbanum</i> L.	\	GOL133 / Forests & shrubs.	CRP
115.	P	<i>Malus sylvestris</i> (L.) Mill.	\	GOL134 / Forests & shrubs.	EUR
116.	H	<i>Potentilla argentea</i> L.	\	GOL135 / Grasslands (E,W)	PNT
117.	H	<i>Potentilla astracana</i> Jacq. [P. <i>hirta</i> L.]	\	GOL136 / Grasslands (N, E, S, W)	PNT
118.	H	<i>Potentilla heptaphylla</i> subsp. <i>australis</i> (Nyman) Gams [<i>Potentilla australis</i> Krašan]	\	GOL137 / Grasslands (N, E, S, W)	ILY
119.	H	<i>Potentilla detommasii</i> Ten.	\	GOL138 / Forests & shrubs.	BLK
120.	H	<i>Potentilla micrantha</i> DC.	\	GOL139 / Forests & shrubs.	SMD
121.	H	<i>Potentilla visianii</i> Pančić	NT End	GOL140 / Grasslands (N, E, S, W)	BLK
122.	P(NP)	<i>Prunus spinosa</i> L.	\	GOL141 / Forests & shrubs.	EUA
123.	P	<i>Pyrus spinosa</i> Forssk. [<i>Pyrus amigdaliformis</i> Will.]	\	GOL142 / Forests & shrubs.	MED
124.	P	<i>Pyrus elaeagnifolia</i> Pall.	\	GOL143 / Forests & shrubs.	EUA
125.	P	<i>Pyrus communis</i> subsp. <i>pyraster</i> (L.) Ehrh. [<i>Pyrus pyraster</i> Burgsd.]	\	GOL144 / Forests & shrubs.	MED
126.	P(NP)	<i>Rosa canina</i> L.	\	GOL145 / Forests & shrubs.	EUR
127.	P(NP)	<i>Rosa spinosissima</i> L. [<i>Rosa pimpinellifolia</i> L.]	\	GOL146 / Forests & shrubs. Grasslands. (N, E)	SMD
128.	P(NP)	<i>Rubus canescens</i> DC.	\	GOL147 / Forests & shrubs	EUR
129.	H	<i>Sanguisorba minor</i> Scop.	\	GOL148 / Grasslands (N, E, S, W)	EUA
130.	H	<i>Sanguisorba officinalis</i> L.	\	GOL149 / Grasslands (N,E)	CSM
131.	P(NP)	<i>Sorbus torminalis</i> (L.) Crantz.	\	GOL150 / Forests & shrubs	EUR

		Rhamnaceae			
132.	P(NP)	<i>Frangula alnus</i> Mill.	\	GOL162 / Forests & shrubs	EUA
		Ulmaceae			
133.	P	<i>Ulmus glabra</i> Huds. [<i>Ulmus campestris</i> L.]	\	GOL221 / Forests & shrubs	EUA
		Geraniaceae			
134.	T	<i>Erodium cicutarium</i> (L.) L'Her.	\	GOL128 / Grasslands (S, W)	EUA
135.	H	<i>Geranium sanguineum</i> L.	\	GOL129 / Grasslands. Forest. (N, E, S, W)	EUR
		Fagaceae			
136.	P	<i>Quercus cerris</i> L.	\	GOL085 / Forests & shrubs	EUR
137.	P	<i>Quercus frainetto</i> Ten.	\	GOL086 / Forests & shrubs	EUR
138.	P	<i>Quercus pubescens</i> Willd.	\	GOL087 / Forests & shrubs	SMD
		Corylaceae			
139.	P	<i>Carpinus betulus</i> L.	\	GOL198 / Forests & shrubs	EUA
140.	P(NP)	<i>Carpinus orientalis</i> Mill.	\	GOL199 / Forests & shrubs	EUA
141.	P(NP)	<i>Corylus avellana</i> L.	\	GOL200 / Forests & shrubs	EUR
		Lythraceae			
142.	H	<i>Lythrum salicaria</i> L.	\	GOL120 / Grasslands (N, E)	CSM
		Anacardiaceae			
143.	P	<i>Cotinus coggygria</i> Scop.	\	GOL004 / Forests & shrubs	EUA
		Sapindaceae			
144.	P	<i>Acer campestre</i> L.	\	GOL121 / Forests & shrubs	PNT
145.	P	<i>Acer monspessulanum</i> L.	\	GOL122 / Forests & shrubs	EUR
146.	P	<i>Acer obtusatum</i> Waldst. et Kit. ex Willd.	\	GOL123 / Forests & shrubs	BLK
147.	P	<i>Acer tataricum</i> L.	\	GOL124 / Forests & shrubs	EUA
		Apiaceae			
148.	T	<i>Bupleurum flavicans</i> Boiss. et Heldr.	\	GOL021 / Grasslands (N, E, S, W)	BLK
149.	H	<i>Laserpitium siler</i> L.	\	GOL022 / Grasslands (N)	EUR
150.	T	<i>Orlaya grandiflora</i> (L.) Hoffm	\	GOL023 / Grasslands (N, E, S)	MED
151.	H	<i>Physospermum cornubiense</i> (L.) DC.	\	GOL024 / Forests & shrubs.	MED
152.	H	<i>Smyrniolum perfoliatum</i> L.	\	GOL025 / Forests & shrubs.	EUR
153.	H	<i>Trinia glauca</i> (L.) Dumort.	\	GOL026 / Grasslands. (N, E, S, W)	MED
		Rutaceae			
154.	Ch	<i>Dictamnus albus</i> L.	\	GOL027 / Forests & shrubs.	EUA
155.	Ch	<i>Haplophyllum boissierianum</i> Vis. et Panc.	EN End	GOL028 / Rocky grasslands. (W)	ILY
		Thymelaceae			
156.	Ch	<i>Daphne cneorum</i> L.	EN	GOL054 / Grassland. (N)	EUR
157.	T	<i>Thymelaea passerina</i> (L.) Cosson & Germ. [<i>Lygia passerina</i> (L.) Fass.]	\	GOL055 / Grassland. (W)	EUR
		Cistaceae			
158.	Ch	<i>Fumana bonaparteii</i> Maire & Petitm.	\	GOL099 / Grassland (N, E, S, W)	BLK
159.	Ch	<i>Helianthemum nummularium</i> (L.) Mill.	\	GOL100 / Grassland (N, E, S)	EUA
		Malvaceae			
160.	P	<i>Tilia platyphyllos</i> Scop.	\	GOL034 / Forests & shrubs.	EUR
		Brassicaceae			
161.	T	<i>Aethionema saxatile</i> L. R. Rr.	\	GOL040 / Grassland. (N, E, S, W)	SMD
162.	H	<i>Alyssum markgrafi</i> O.E. Schultz.	\	GOL041 / Forests & shrubs	BLK
163.	H	<i>Alyssum montanum</i> L.	\	GOL042 / Grasslands. Forest. (N, E, S, W)	SMD
164.	H	<i>Alyssum murale</i> W. et K.	\	GOL043 / Grasslands. (N, E, S, W)	SMD
165.	H	<i>Capsella bursa-pastoris</i> (L.) Med.	\	GOL044 / Grasslands. Forest. (N, E, S, W)	CSM
166.	H	<i>Erysimum sylvestre</i> (Crantz.) Scop. <i>Pseudoturritis turrita</i> (L.) Al-Shehbaz	\	GOL045 / Grasslands. (N, E, W)	ALP
167.	T	[<i>Arabis turrita</i> L.]	\	GOL046 / Forests & shrubs	SMD
168.	H	<i>Rorippa lippizensis</i> (Wulfen) Rchb.	\	GOL047 / Grasslands. (N, E, S, W)	ILY

169.	T	<i>Microthlaspi perfoliatum</i> (L.) F. K. Mey. [<i>Thlaspi perfoliatum</i> L.]	\	GOL048 / Forest & shrubs.	EUA
170.	H	<i>Thlaspi praecox</i> Wulfen	\	GOL049 / Grasslands. Rocky pastures. (N, S, W)	SMD
Santalaceae					
171.	Ch	<i>Comandra umbellata</i> subsp. <i>elegans</i> (Spreng.) Pichl [<i>Comandra elegans</i> (Roch.) Rechb.]	\	GOL019 / Grasslands (N, E, W)	BLK
172.	H	<i>Thesium ramosum</i> Hayne.	\	GOL020 / Grasslands. Forests. (N, E, W)	EUA
Polygonaceae					
173.	H	<i>Rumex acetosella</i> L.	\	GOL039 / Grasslands (N, E, S, W)	CSM
Plumbaginaceae					
174.	H	<i>Goniolimon collinum</i> (Griss.) Boiss.	\	GOL265 / Grasslands (W)	SMD
Caryophyllaceae					
175.	Ch	<i>Cerastium arvense</i> L. subsp. <i>ciliatum</i>	\	GOL158 / Grasslands (N, E, S, W)	CRP
176.	T	<i>Cerastium pumilum</i> Curtis	\	GOL159 / Grasslands (N, E, S, W)	EUR
177.	H	<i>Dianthus carthusianorum</i> L.	\	GOL160 / Grasslands (N, E, S, W)	SMD
178.	T	<i>Holosteum umbellatum</i> L.	\	GOL161 / Grasslands (N)	EUA
179.	H	<i>Minuartia verna</i> (L.) Hiern	\	GOL162 / Grasslands (N, E, S, W)	CRP
180.	H	<i>Paronychia kapela</i> (Hacq.) Kerner	\	GOL163 / Grasslands (N, E, S, W)	EUR
181.	H	<i>Petrorhagia saxifraga</i> (L.) Link. [<i>Tunica saxifraga</i> (L.) Scop.]	\	GOL164 / Grasslands (N, E, S, W)	SMD
182.	H	<i>Scleranthus annuus</i> L.	\	GOL165 / Grasslands (W)	EUA
183.	H	<i>Silene italica</i> (L.) Persl.	\	GOL166 / Forests & shrubs.	MED
184.	H	<i>Silene longiflora</i> Ehrh. [<i>S. bupleuroides</i> Chater et Walters]	\	GOL167 / Grasslands (N, E, W)	EUR
185.	H	<i>Silene nutans</i> L.	\	GOL168 / Forests & shrubs.	EUR
186.	H	<i>Silene otites</i> (L.) Wibel.	\	GOL169 / Grasslands (N, E, S, W)	EUR
187.	H	<i>Silene paradoxa</i> L.	\	GOL170 / Grasslands (N, E, S, W)	EUR
188.	H	<i>Silene viridiflora</i> L.	\	GOL171 / Forests & shrubs.	EUR
189.	H	<i>Silene vulgaris</i> (Moench.) Garcke	\	GOL172 / Grasslands (N, E, S, W)	EUA
190.	H	<i>Silene coronaria</i> Clairv. [<i>Lychnis coronaria</i> (L.) Desr.]	\	GOL173 / Forests & shrubs.	SMD
191.	H	<i>Silene viscaria</i> (L.) Jess. [<i>Lychnis viscaria</i> (L.) K. Jess.]	\	GOL174 / Forests & shrubs.	CSM
192.	H	<i>Stellaria holostea</i> L.	\	GOL175 / Forests & shrubs. Grasslands (N)	EUR
Cornaceae					
193.	P (NP)	<i>Cornus mas</i> L.	\	GOL236 / Forests & shrubs.	EUA
194.	P (NP)	<i>Cornus sanguinea</i> L.	\	GOL237 / Forests & shrubs.	BLK
Primulaceae					
195.	G	<i>Cyclamen hederifolium</i> Aiton.	\	GOL176 / Forests & shrubs.	SMD
196.	H	<i>Primula veris</i> L. [<i>Primula officinalis</i> (L.) Hill.]	\	GOL177 / Grasslands. (N, E, S)	EUR
197.	H	<i>Primula vulgaris</i> Huds.	\	GOL178 / Forests & shrubs.	EUA
Rubiaceae					
198.	H	<i>Asperula cynanchica</i> L.	\	GOL015 / Grasslands. (E, W)	SMD
199.	G	<i>Asperula taurina</i> L.	\	GOL016 / Forests & shrubs.	SMD
200.	H	<i>Galium gerardi</i> Will.	\	GOL017 / Grasslands. (N, E, S, W)	EUR
201.	G	<i>Galium verum</i> L.	\	GOL018 / Grasslands. (N, E, S, W)	EUA
Gentianaceae					
202.	H	<i>Centaurium erythraea</i> Rafn.	\	GOL238 / Grasslands. (N, E, S)	EUR
203.	T	<i>Centaurium pulchellum</i> (Swartz.) Druce.	\	GOL239 / Grasslands. (S, W)	EUA
Apocynaceae					
204.	H	<i>Vincetoxicum huteri</i> Vis. et Arch.	\	GOL179 / Grasslands. Forests & shrubs. (N, E, S, W)	EUR

		Oleaceae			
205.	H	<i>Forsythia europaea</i> Degen & Bald.	LC End	GOL001 / Forests & shrubs.	BLK
206.	P(NP)	<i>Fraxinus ornus</i> L.	\	GOL002 / Forests & shrubs.	ILY
207.	P(NP)	<i>Ligustrum vulgare</i> L.	\	GOL003 / Forests & shrubs.	EUR
		Plantaginaceae			
208.	G	<i>Digitalis lanata</i> Ehrh.	\	GOL266 / Forests & shrubs.	EUR
209.	H	<i>Plantago argentea</i> Chaix.	\	GOL267 / Grasslands. (N, E, W)	EUR
210.	H	<i>Plantago lanceolata</i> L.	\	GOL268 / Grasslands. Forest. Shrubs. (N, E, S, W)	CSM
211.	H	<i>Plantago media</i> L.	\	GOL269 / Grasslands. Forest. Shrubs. (N, E, S, W)	EUA
212.	H	<i>Plantago subulata</i> L.	\	GOL270 / Grasslands. (N, E, S, W)	EUA
213.	H	<i>Veronica austriaca</i> L.	\	GOL271 / Grasslands. (E)	EUA
214.	H	<i>Veronica chamaedrys</i> L.	\	GOL272 / Grasslands. Forests. (N, E, S)	EUA
215.	H	<i>Veronica austriaca</i> subsp. <i>jacquinii</i> (Baumg.) Eb. Fis. [<i>Veronica jacquinii</i> Baumg.]	\	GOL273 / Grasslands. Forests. (N, E, S, W)	PNT
216.	H	<i>Veronica spicata</i> L.	\	GOL274 / Grasslands. (N, E, S)	EUA
217.	H	<i>Veronica officinalis</i> L.	\	GOL275 / Forests & shrubs.	CRP
		Scrophulariaceae			
218.	T(H)	<i>Verbascum phoeniceum</i> L.	\	GOL101 / Grasslands. Forests. (N, E, S, W)	EUR
		Lamiaceae			
219.	H	<i>Ajuga genevensis</i> L.	\	GOL201 / Forest & shrubs.	EUA
220.	G	<i>Ajuga laxmani</i> (L.) Benth.	\	GOL202 / Forest & shrubs.	EUR
221.	H	<i>Clinopodium grandiflorum</i> (L.) Kuntze [<i>Calamintha grandiflora</i> (L.)]	\	GOL203 / Forest & shrubs.	SMD
222.	H	<i>Clinopodium vulgare</i> L.	\	GOL204 / Forest & shrubs.	EUA
223.	T	<i>Erophila verna</i> (L.) Chevall.	\	GOL205 / Grasslands. (W)	BOR
224.	H	<i>Origanum vulgare</i> L.	\	GOL206 / Forest & shrubs.	EUR
225.	H	<i>Prunella grandiflora</i> (L.) Scholler	\	GOL207 / Grasslands. (N)	EUR
226.	H	<i>Prunella laciniata</i> L.	\	GOL208 / Grasslands. (N, E, W)	MED
227.	Ch	<i>Satureja montana</i> L.	\	GOL209 / Grasslands. (S, W)	MED
228.	T	<i>Sideritis montana</i> L.	\	GOL210 / Forest & shrubs.	EUA
229.	H	<i>Stachys officinalis</i> (L.) Trev.	\	GOL211 / Grasslands. (N, E, W)	EUR
230.	H	<i>Stachys scardica</i> (Griseb.) Hayek.	\	GOL212 / Grasslands. Forest. (N, E, S, W)	BLK
231.	H	<i>Stachys recta</i> L.	\	GOL213 / Grasslands. (N, E, S, W)	PNT
232.	Ch	<i>Teucrium chamaedrys</i> L.	\	GOL214 / Grasslands. Forests. (N, E, S, W)	MED
233.	H	<i>Teucrium montanum</i> L.	\	GOL215 / Grasslands. (N, E, S, W)	EUR
234.	Ch	<i>Thymus longicaulis</i> C. Pers.	\	GOL227 / Grasslands. (N, E, S, W)	BLK
		Orobanchaceae			
235.	T	<i>Euphrasia pectinata</i> Ten.	\	GOL074 / Grasslands (N, S)	MED
236.	T	<i>Melampyrum cristatum</i> L.	\	GOL075 / Grasslands (N)	EUR
237.	T	<i>Odontites luteus</i> (L.) Clairv.	\	GOL076 / Grasslands. (N, E, W)	PNT
238.	Par(T)	<i>Orobanche alba</i> Stephen ex. Willd.	\	GOL077 / Grasslands. (E, W)	EUA
239.	Par(T)	<i>Orobanche gracilis</i> Sm. [<i>O. cruenta</i> Bertol.]	\	GOL078 / Grasslands. (N, E, S, W)	MED
240.	T	<i>Parentucellia latifolia</i> (L.) Caruel.	\	GOL079 / Grasslands. (E, W)	MED
241.	T	<i>Rhinanthus rumelicus</i> Vel.	\	GOL080 / Grasslands. (N, W)	BLK
		Convolvulaceae			
242.	G	<i>Calystegia sepium</i> R. Br.	\	GOL058 / Forests.	CSM
243.	H	<i>Convolvulus cantabricus</i> L.	\	GOL059 / Forests & shrubs. Grasslands. (N, E, S, W)	SMD
244.	Par(T)	<i>Cuscuta europaea</i> L.	\	GOL060 / Grasslands. (N, E, W)	CSM
		Boraginaceae			
245.	T	<i>Buglosoides arvensis</i> (L.) I. M.	\	GOL112 / Grasslands. (N, S, W)	EUA

246.	H	<i>Echium rubrum</i> Forssk.	\	GOL113 / Grasslands. (N, E, S, W)	PNT
247.	H	<i>Halacsya sendtneri</i> (Boiss.) Doerfl.	LC End	GOL114 / Grasslands. (N, E, S, W)	BLK
248.	Ch	<i>Lithospermum purpuro-coeruleum</i> L.	\	GOL115 / Forests & shrubs.	PNT
249.	H	<i>Myosotis sylvatica</i> Hoffm.	\	GOL116 / Forests & shrubs.	EUA
250.	Ch	<i>Paramoltkia doerfleri</i> (Wettst.) Gre. & Burd. [<i>Moltkia doerfleri</i> Wettst.]	NT End	GOL117 / Forests & shrubs.	BLK
251.	G	<i>Symphytum tuberosum</i> L.	\	GOL118 / Forests & shrubs.	PNT
Araliaceae					
252.	P	<i>Hedera helix</i> L.	\	GOL089 / Forests & shrubs.	SMD
Adoxaceae					
253.	P(NP)	<i>Viburnum lantana</i> L.	\	GOL035 / Forests & shrubs.	EUR
Caprifoliaceae					
254.	P(NP)	<i>Lonicera caprifolium</i> L.	\	GOL090 / Forests & shrubs.	EUR
Dipsacaceae					
255.	H	<i>Knautia drymeia</i> Heuff.	\	GOL091 / Forests & shrubs. Grasslands (N)	BLK
Valerianaceae					
256.	T	<i>Valerianella dentata</i> (L.) Pollich. [<i>V. morisonii</i> (Sprengel) D. C.]	\	GOL036 / Grasslands (E)	SMD
Campanulaceae					
257.	H	<i>Asyneuma limonifolium</i> (L.) Janchen [<i>A. parviflorum</i> Turill]	\	GOL093 / Grasslands. (N, E, S, W)	MED
258.	H	<i>Campanula glomerata</i> L.	\	GOL094 / Grasslands. (N, E, S, W)	EUA
259.	H	<i>Campanula persicifolia</i> L.	\	GOL095 / Forests & shrubs.	EUA
260.	H	<i>Campanula rapunculus</i> Panc.	\	GOL096 / Forests & shrubs.	EUA
261.	H	<i>Campanula trachelium</i> L.	\	GOL097 / Forests & shrubs.	EUA
Asteraceae					
262.	H	<i>Achillea millefolium</i> L.	\	GOL277 / Grasslands. (N, E, S, W)	EUA
263.	H	<i>Anthemis cretica</i> L. [<i>A. montana</i> L.]	\	GOL278 / Grasslands. (N, E, S, W)	EUR
264.	Ch	<i>Artemisia alba</i> Turra [<i>A. camphorata</i> Vill.]	\	GOL279 / Grasslands. (N, E, S, W)	MED
265.	H	<i>Bellis perennis</i> L.	\	GOL280 / Grasslands. (N, E, S)	EUR
	H	<i>Carduus acanthoides</i> L.	\	GOL281 / Grasslands. (E)	EUR
266.	H	<i>Carduus micropterus</i> (Borbas) Teyber [<i>C. nutans</i> subsp. <i>micropterus</i> (Borbas) Hayek]	\	GOL282 / Grasslands. (W)	EUA
267.	H	<i>Centaurea albertii</i> Rexhepi	VU End	GOL283 / Grasslands. (N, E, S, W)	BLK
268.	H	<i>Centaurea jacea</i> L.	\	GOL284 / Grasslands. (N, E, S)	EUA
269.	H	<i>Centaurea stoebe</i> subsp. <i>australis</i> (A. Kern.) Greuter [<i>Centaurea stoebe</i> L. subsp. <i>micranthos</i> (Gmel.) Hayek]	\	GOL285 / Grasslands. (N, E, S, W)	EUA
270.	H	<i>Centaurea triumfetti</i> All.	\	GOL286 / Grasslands. Forests. (N, E).	EUR
271.	H	<i>Cota tinctoria</i> (L.) J. Gay [<i>A. tinctoria</i> L.]	\	GOL287 / Grasslands (N, E, S, W)	EUA
272.	H	<i>Cichorium intybus</i> L.	\	GOL288 / Grasslands (N, E, S, W)	CSM
273.	T	<i>Crupina vulgaris</i> Cass.	\	GOL289 / Grasslands (N, E, S, W)	PNT
274.	T	<i>Filago pyramidata</i> L.	\	GOL290 / Grasslands (N, E, S, W)	SMD
275.	H	<i>Galatella albanica</i> Degen [<i>Aster albanicus</i> subsp. <i>albanicus</i>]	VU End	GOL291 / Grasslands (E)	BLK
276.	H	<i>Galatella linosyris</i> (L.) Rchb. f. [<i>Aster linosyris</i> (L.) Bernh]	\	GOL292 / Grasslands. (N, E)	PNT
277.	G	<i>Inula ensifolia</i> L.	\	GOL293 / Grasslands. Forests. (N, E, W)	PNT
278.	H	<i>Inula hirta</i> L.	\	GOL294 / Grasslands. (N, E, S, W)	EUA

279.	G	<i>Inula salicina</i> L.	\	GOL295 / Grasslands. Forests. (N)	PNT
280.	H	<i>Jacobaea vulgaris</i> Gaertn. [<i>Senecio jacobaea</i> L.]	\	GOL102 / Grasslands (N, E, S, W)	EUA
281.	H	<i>Jurinea mollis</i> (L.) Reich.	\	GOL103 / Grasslands (N, E, S, W)	PNT
282.	H	<i>Klasea radiata</i> (Waldst. & Kit.) Á. Lö. & D. Lö. [<i>Serratula radiata</i> (W. et K.) Bieb.]	CR	GOL104 / Grasslands. Forests. (N, E, W)	PNT
283.	H	<i>Leontodon crispus</i> Vill.	\	GOL105 / Grasslands (N, E, S, W)	BLK
284.	H	<i>Leucanthemum vulgare</i> (Lam.) DC.	\	GOL106 / Forests & shrubs.	EUA
285.	H	<i>Pilosella piloselloides</i> (Vill.) Soják [<i>Hieracium piloselloides</i> Zahn]	\	GOL108 / Grasslands (N, E, S, W)	EUA
286.	H	<i>Pilosella piloselloides</i> subsp. <i>praealta</i> (Gochnat) S. Bräut. & Greuter [<i>Hieracium praealtum</i> Vill. (<i>H. bauhinii</i> Besser).]	\	GOL109 / Grasslands (W)	EUA
287.	T	<i>Podospermum laciniatum</i> (L.) DC.	\	GOL110 / Grasslands (N)	EUA
288.	T	<i>Senecio leucanthemifolius</i> subsp. <i>vernalis</i> (Waldst. & Kit.) Greuter [<i>Senecio vernalis</i> W. et K.]	\	GOL037 / Grasslands (N, W)	PNT
289.	H	<i>Scorzonera austriaca</i> Willd.	\	GOL038 / Grasslands (N, E, S, W)	PNT
290.	H	<i>Scorzonera hispanica</i> L.	\	GOL151 / Grasslands (N, E, S)	PNT
291.	H	<i>Tanacetum corymbosum</i> (L.) Schultz. Bip.	\	GOL152 / Grasslands. Forests. (N, E, W)	PNT
292.	H	<i>Taraxacum officinale</i> Weber	\	GOL153 / Grasslands (N, E, S, W)	EUA
293.	T	<i>Xeranthemum annuum</i> L.	\	GOL154 / Grasslands (N, S)	SMD
294.	T	<i>Xeranthemum cylindraceum</i> Sibth. et Sm.	\	GOL155 / Grasslands (N, E, W)	PNT

Legend: F – Forest, G – Grassland, \ – Not threatened, LC – Least Concern, E – Endangered, CR – Critically Endangered, VU – Vulnerable, End – Endemic, EUR – European, EUA – Euro-Asiatic, PNT – Pontic, BLK – Balkans, CSM – Cosmopolitan, MED – Mediterranean, SMD – Sub-Mediterranean, BOR – Boreal, CRP – Circumpolar, ILY – Illyric, ALP – Alpine, PAL – Paleotemperate, SMZ – Submesic.

*Ordering of the plant families follows the arrangement as in: Exkursionsflora von Deutschland, 12th Edition (JÄGER et al., 2013)

Appendix II. Notes on pictures.

No.	Taxa	Photograph credentials
1.	<i>Narcissus poeticus</i> subsp. <i>radiiflorus</i> (Salisb.) Baker	Krasniqi, E. / 22.05.2016
2.	<i>Centaurea albertii</i> Rexhepi	Krasniqi, E. / 11.07.2015
3.	<i>Galatella albanica</i> Degen	Krasniqi, E. / 06.07.2017
4.	<i>Klasea radiata</i> (Waldst. & Kit.) Á. Lö. & D. Lö.	Krasniqi, E. / 20.06.2015
5.	<i>Halacsya sendtneri</i> (Boiss.) Doerfl.	Krasniqi, E. / 15.05.2016
6.	<i>Paramoltkia doerfleri</i> (Wettst.) Gre. & Burd.	Berisha, N. / 24.07.2016
7.	<i>Linum flavum</i> L.	Berisha, N. / 25.05.2017
8.	<i>Forsythia europaea</i> Degen & Bald.	Krasniqi, E. / 21.04.2015
9.	<i>Polygala doerfleri</i> Hayek	Berisha, N. / 10.06.2015
10.	<i>Potentilla visianii</i> Pančić	Krasniqi, E. / 12.06.2017
11.	<i>Haplophyllum boissertianum</i> Vis. et Panč.	Krasniqi, E. / 15.05.2016
12.	<i>Daphne cneorum</i> L.	Krasniqi, E. / 20.04.2017