

Contributions to the flora of Albania

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Contributions to the flora of Albania

Abstract

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Floristic results of our botanical explorations in Albania between 2005 and 2008 are presented. The studied area covers almost the whole territory of Albania, except for the NE part of the country. Altogether 18 angiosperm taxa are reported and discussed, 11 are species new for the flora of Albania and 7 are rather rare species that had been reported previously but were omitted from all recent floras and the red data book of the country and are now confirmed. The knowledge on the distribution of the taxa in the neighbouring countries is also evaluated.

Additional key words: Balkan Peninsula, nomenclature, taxonomy, vascular plants

Introduction

The authors recently published floristic results of their field trips made between 2004 and 2007 in Albania (Barina & Pifkó 2008a, b, c), including 14 species completely new for the flora of the country and numerous others that are either missing from one or more recent floras of Albania (Demiri 1983; Papparisto & al 1988; Qosja & al. 1992, 1996; Vangjeli & al. 2000; Vangjeli 2003) or are rare and endangered taxa (Vangjeli & al. 1995).

Further four field trips were organised to Albania in 2008 with the aim of plant collection. At the same time the first author continued the determination of the nearly 6000 herbarium specimens collected between 2004 and 2008 in Albania. The new field trips and the identification of the previously collected material yielded several rare and interesting species including several new records for the flora of Albania and additional information on the state and distribution of others. This paper presents the species recognised as new for the flora of Albania and those that had only dubious or very few earlier records.

Material and methods

The records given in the present contribution are based on our field trips made between 2005 and 2008. Voucher specimens are deposited in the Herbarium of the Hungarian Natural History Museum (BP) in Budapest. The specimens were determined by the first author if not stated otherwise.

The geographic coordinates of the collecting localities were located using a Garmin eTrex Venture cx GPS. The recorded data were downloaded with the program Ozi Explorer (Newman & Newman 2005) and processed with ArcMap of the ArcGIS 8.2 suite (ESRI 2002). In the species list the codes (loc. 1–36) of the collecting localities and the first author's collection numbers are given.

The names of localities used are based on the Russian topographic maps of Albania of 1: 50 000 scale (Generalnyj Shtab 1986), the geographical map of Albania (Anon. 1983) and Lafe & Kabo (2002).

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List of localities

District of Berat (Rrethi i Beratit)

1. eastern slope of Mt Shpirag, near the 1078 m high peak, above the village Paftal, in low scrubland, on limestone, 40.690810°N, 19.864830°E, 957 m, 21.4.2008, Z. Barina, D. Pifkó, R. Gógh, Z. Drahos, D. Schmidt & F. Pósa

District of Bulqizë (Rrethi i Bulqizës)

Mali i Kreshtës, on the southern ridge of Mt “Maja e Temlës” (1701.3 m), between the villages “Zërqa” and “Dusaj Bulqizë”, in rocky grassland, on limestone

2. 41.514910°N, 20.312860°E, 1035 m, 29.5.2008, Z. Barina & D. Pifkó
3. 41.519740°N, 20.313650°E, 1211 m, 29.5.2008, Z. Barina & D. Pifkó

District of Gjirokastrë (Rrethi i Gjirokastrës)

4. Mts Mali i Gjerë, eastern slope of Maja e Frashrit (1789 m), c. 3.6 km NW of Gjirokastrë, in a shady valley, 40.092680°N, 20.095390°E, 775 m, 18.4.2008, Z. Barina, D. Pifkó, D. Schmidt & R. Gógh

District of Kolonjë (Rrethi i Kolonjës)

5. 1.3 km SE of village Psari i Zi, in *Pinus nigra* forest, 40.432420°N, 20.601890°E, 946 m, 21.7.2006, Z. Barina, D. Pifkó, G. Király, Cs. Németh
6. between the villages Borovë and Barmash, c. 2.3 km N of Barmash, western slope of the 1110 m high mountains, in open, planted Austrian pine forest, on limestone, 40.299176°N, 20.627056°E, 1000 m, 12.8.2008, Z. Barina & A. Schmotzer

Grammos Mts (Mali i Grammozit)

7. 1.5 km E of the village Starje and 3.7 km W of the peak ‘Maja e Qukapecit’ (2522.7 m), in the valley of the brook “Alikolare”, in *Ostrya carpinifolia* dominated open forest, 40.359080°N, 20.738620°E, 1500 m, 19.7.2006, Z. Barina
8. 2.3–3.7 km E of the village Rehovë, western slope of Mt Meci (2430.1 m), pasture, between 40.331660°N, 20.753470°E, 2213 m and 40.337780°N, 20.736480°E, 1726 m (distance c. 1.5 km), 17.7.2006, G. Király (photo)
9. Mt Shelegur, in Austrian pine forest, 40.181973°N, 20.670150°E, 1370 m, 12.8.2008, Z. Barina & Cs. Németh
10. western slope of Mt Kameniku (2043.1 m) c. 950 m W of the peak, in limestone-rocky grassland, 40.213270°N, 20.704100°E, 1863 m, 21.7.2006, Z. Barina, D. Pifkó, G. Király & Cs. Németh

District of Korçë (Rrethi i Korçës)

11. southern slope of Mt “Maja e Shkorretës” (1475 m), between the villages Moglicë and Nikollarë, in scrubland,

on flysh, 40.707960°N, 20.435272°E, 770 m, 10.8.2008, Z. Barina, Cs. Németh & A. Schmotzer

Thatë Mountains (Mali i Thatë)

12. c. 4.1 km E of the village Podgorije, c. 1.6 km N of Mt “Meza” (1863 m) and 1.3 km ESE of Mt “Maja e Stanit” (1911.6 m), in grassland, on limestone, 40.821970°N, 20.850840°E, 1847 m, 20.5.2007, Z. Barina, D. Pifkó & Cs. Németh
13. eastern slope of Mt “Brinja e Cfarit” (2238 m), c. 6.2 km SW of the village Gorica e Madhe and c. 7.1 km W of village Gollomboç, on limestone rock, 40.848529°N, 20.862419°E, 1750 m, 15.8.2008, Z. Barina, Cs. Németh & A. Schmotzer

District of Kukës (Rrethi i Kukësit)

14. N of the village Novoselë, in grassland, 41°59.056'N, 20°34.113'E, 24.6.2007, D. Murányi

District of Librazhd (Rrethi i Librazhdit)

Jablanica Mts (Mali i Jablanices)

15. southwestern slope of Mt “Maja e Kalkanit” (2132 m), c. 5.9 km SSE of the village Steblevë, grassland on gravel conglomerate, 41.288240°N, 20.502850°E, 2049 m, 3.7.2008, Z. Barina, D. Pifkó & A. Vojtkó

District of Lushnjë (Rrethi i Lushnjës)

16. near the village Divjakë in the area of “Karavasta Lagoon”, c. 0–5 m, 26.4.2003, A. Mesterházy

District of Përmet (Rrethi i Përmetit)

17. valley of the brook Lengaricë, c. 1.6 km WNW of the village Grabovë, in the sandy floodplain of the brook, 40.242610°N, 20.429600°E, 332 m, 19.4.2008, Z. Barina, D. Pifkó, D. Schmidt, R. Gógh & Z. Drahos
18. near the valley of the brook Bënjë, c. 1.3 km NE of the village Bënjë, in Mediterranean scrubland, 40.261910°N, 20.427630°E, 648 m, 20.4.2008, Z. Barina & D. Pifkó
19. region Dangelli, 1.5 km NW of the village Grabovë, in the limestone gorge of river Lengarica (Lumi i Lengaricës), 40.245240°N, 20.433740°E, 349 m, 25.5.2006, Z. Barina

Dhembëli Mountains (Mali i Dhembëlit)

20. 150 m S of the village “Leushë”, towards the pass Dhembëli (qafa Dhembelit), on limestone rocks, 40.216570°N, 20.354780°E, 541 m, 21.5.2006, Z. Barina & D. Pifkó

Nemerçke Mountains (Mali i Nemerçkes)

21. northeastern slope of Mt Poliçani, 400 m NE of the peak Poliçani (maja e Poliçanit, 2138 m), in limestone-rocky grassland, 40.174570°N, 20.354800°E, 1943 m, 23.5.2006, Z. Barina & D. Pifkó

District of Sarandë (Rrethi i Sarandës)

22. c. 600 m W of the ancient settlement of “Buthrotum” (Butrint), southern slope of Mt “Sotirë” (2343 m), by the roadside, on limestone, 39.745550°N, 20.014380°E, 12 m, 19.4.2007, *Z. Barina, D. Pifkó, A. Csóka & B. Pintér*

District of Shkodër (Rrethi i Shkodrës)

23. 1.3 km SW of the village Velipojë and 2.1 km SE of the village Pulaj, on sand dunes at the seashore, 41.861070°N, 19.403550°E, 2 m, 11.4.2007, *Z. Barina, D. Pifkó, A. Csóka & B. Pintér*
24. c. 5 km E of the village Mjedë, c. 1.5 km WNW of the pass “qafa e Laçit”, near the road to Pukë, on the hill “Boka” (463.2 m), in dry grassland on serpentine base rock, 42.014360°N, 19.677470°E, 449 m, 12.4.2007, *Z. Barina, D. Pifkó, A. Csóka & B. Pintér*

Bjeshkët e Namuna (Prokletije Mountains)

25. c. 2.5 km N of the village Okol, towards Mt Harape (2216.5 m), on limestone, 42.440590°N, 19.770640°E, 1353 m, 30.5.2005, *Z. Barina*
26. c. 2.5 km W of the village Okol, southeastern slope of Mt Shtegu (2081 m), in rocky grassland, on limestone, 42.383930°N, 19.751750°E, 1623 m, 29.5.2005, *Z. Barina & D. Pifkó*

District of Skrapar (Rrethi i Skraparit)

Ostrovica Mts (Mali i Ostrovices)

27. N of the village Backë, near the pass between Mt Frenqu (2178 m) and Mt Faqekuq (2351.4 m), grassland, 40.527840°N, 20.410990°E, c. 2050 m, 4.7.2005, *Z. Barina, D. Pifkó & D. Schmidt*
28. NE of the village Backë, western slope of Mt Faqekuq (2351.4 m), near the spring Mbreti, in rocky grassland, 40.532720°N, 20.422000°E, 2211 m, 5.7.2005, *Z. Barina, D. Pifkó & D. Schmidt*
29. 4.5 km NE of Turbehovë, in the limestone gorge of Pr. i Krishovës, 40.55900°N, 20.39083°E, 1040 m, 23.8.2005, *Z. Fehér, A. Hunyadi, T. Huszár & D. Murányi*

District of Tepelenë (Rrethi i Tepelenës)

Gribo Mts (Mali i Gribës)

30. c. 2.5 km W of the village Bëncë, eastern ridge of Mt Dutihe (1429.1 m), on limestone rocks, 40.264330°N, 19.969630°E, 1244 m, 2.5.2005, *Z. Barina, D. Pifkó & G. Király*

District of Vlorë (Rrethi i Vlorës)

31. c. 600 m ENE of the village Ilias, near the valley of the brooklet “përroi i Ngipesë”, in scrubland, 40.146260°N, 19.679620°E, 337 m, 17.4.2008, *Z. Barina, D. Pifkó, D. Schmidt & R. Gógh*
32. Mt “Lungarë”, S of Vlorë, c. 4 km N of the village “Radhimë”, on limestone cliff by the roadside at the

seashore, 40.40869°N, 19.480760°E, 5 m, 15.4.2007, *Z. Barina, D. Pifkó, A. Csóka & B. Pintér*

“Bishti i Malit” Mts

33. c. 4.2 km WSW of Oriku, in dry grassland, on limestone, 40.302800°N, 19.429360°E, 203 m, 15.4.2008, *Z. Barina, D. Pifkó, D. Schmidt, R. Gógh, Z. Drahos & F. Pósa*
34. c. 6.0 km W of Oriku, in rocky grassland, on limestone, 40.306300°N, 19.404970°E, 426 m, 15.4.2008, *Z. Barina, D. Pifkó, D. Schmidt, R. Gógh, Z. Drahos & F. Pósa*
35. c. 7.6 km W of Oriku, in rocky grassland on limestone, 40.314760°N, 19.384440°E, 134 m, 16.4.2008, *Z. Barina, D. Pifkó, D. Schmidt, R. Gógh, Z. Drahos & F. Pósa*
36. c. 8.2 km W of Oriku, in *Quercus macrolepis* wood, on limestone, 40.313890°N, 19.377240°E, 56 m, 15.4.2008, *Z. Barina, D. Pifkó & R. Gógh*

Results

Allium subhirsutum L. – loc. 22: 11132, loc. 32: 10910, 33: 13126

This species is not included in any Albanian flora (Demiri 1983; Vangjeli & al. 2000; Vangjeli 2003) or Flora Europaea (Stearn 1980) but has been recorded from Saranda (Alston & Sandwith 1940) and Sasan Island (Fiori 1928). Our records also come from the limestone coasts of S Albania. The species is expected to occur in any part of the “Albanian Riviera” between Saranda and Vlora and perhaps near Shengjin in N Albania, where limestone rocks are present at the coast as well.

Bellevalia dubia (Guss.) Rechb. – loc. 34: 13135, loc. 35: 13173, loc. 36: obs.

The species is known from S Croatia (three localities, FCD 2004+), Greece and Italy. Garbari (1982) assumed its occurrence also in Albania (subsp. *boissieri* (Frenzn) Feinbr.: “Jugoslavia, Albania, Grecia”), but none of the Albanian floras (Demiri 1983; Vangjeli & al. 2000; Vangjeli 2003) or any related work mentioned this taxon and no literature records or voucher specimens are known. New for the flora of Albania.

Chamaecytisus eriocarpus (Boiss.) Rothm. – loc. 14 (det. D. Pifkó)

Description of the collected specimen: *Branches* erect, with appressed and some patent hairs. *Leaflets* 7–9 × 2–3 mm, elliptical and obovate, mucronulate, extremely densely sericeous and lanate on both surfaces. *Peduncule* densely with short, patent hairs. *Calyx* with densely appressed or slightly patent hairs. *Legume* short, 15–20 mm, densely lanate, in leafy racemes by 1–2. The specimen is without flowers.

Chamaecytisus absinthoides Janka and *C. rodopaeus* Wagner, both described from Bulgaria, are usually treat-

ed as identical with *C. eriocarpus* from the Balkans, or, together with *C. tmoleus* Boiss. from Turkey, treated as infraspecific taxa of *C. eriocarpus* (Cristofolini 1991; Strid 1986; Heywood & Frodin 1968; Josifović 1972). Further infraspecific taxa were described from the Balkans in *C. absinthoides* (cf. Kuzmanov 1976) with extremely dense indumentum on the leaf surfaces and with short and dense indumentum, on the legumes, as common characters. In our opinion, the taxa distributed in the central Balkan Peninsula and in Turkey need further study, and we use the name *C. eriocarpus* here provisionally in a wide sense.

Chamaecytisus eriocarpus was recorded from S Kosovo (Josifović 1972), Macedonia (Micevski 2001), S and SW Bulgaria (Assyov & Petrova 2006), N Greece (Strid 1986) and SW Turkey (Gibbs 1969), but not from Albania even under any synonym (Heywood & Frodin 1968; Cristofolini 1991; Demiri 1983; Paparisto & al. 1988; Vangjeli 2003), although there are records from near the border in Kosovo and Macedonia. The similar *C. austriacus* and *C. jankae*, however, are treated in Albanian floras (Demiri 1983; Paparisto & al. 1988; Vangjeli 2003), without exact locations. These records of *C. austriacus* may refer to *C. austriacus* var. *pindicolus* Degen ex Baldacci (≡ *C. pindicolus* (Degen ex Baldacci) Halácsy), which was treated by Cristofolini (1991) as identical with *C. austriacus* subsp. *microphyllus* Boiss. Having studied the specimen of Baldacci (*exs. no 315*, Mt Smolika, distr. Konitza), we can state that because of the small leaves (4–6 × 1–2 mm) with the scarcely hairy lower side and the short, dense indumentum on the legumes, it is conspecific with *C. austriacus* only if that taxon was used in an extremely wide sense. The hair type of the leaves of this taxon is also clearly different from *C. eriocarpus*.

While *Chamaecytisus jankae* has a similar type of hairs on the leaves as *C. eriocarpus*, the two taxa differ by the appressed or slightly lanate hairs of the legumes, the narrowly lanceolate leaf shape and the appressed hairs on the sepals of *C. jankae*. The only sufficiently localised record of *C. jankae* is of Dörfler (in Hayek 1924), but it is from the border of Albania with Kosovo (Mt Paštrik, see also *Iris reichenbachii*). This record may refer to *C. eriocarpus*, but we have not studied the voucher specimen so far.

Hieracium echioides* subsp. *procerum (Fries) P. D. Sell – loc. 2: 13622 (det. Jindřich Chrtěk)

The species is distributed from Central Europe eastwards, the subspecies has been recorded from E Europe and SW Asia (Tavakkoli & Assadi 2007). Neither the species nor the subspecies are included in Albanian floras (Demiri 1983; Vangjeli & al. 2000; Vangjeli 2003). New for the flora of Albania.

Hyacinthella leucophaea (C. Koch) Schur – loc. 24: 10752

An E European species distributed in Greece and Bulgaria (Assyov & Petrova 2006) and in E Serbia (Diklić

1975), but not included in any Albanian flora (Demiri 1983; Vangjeli & al. 2000; Vangjeli 2003). Regarding the distribution of the species in the neighbouring countries, the new locality is its westernmost occurrence. The plant was collected with young carpels after flowering. New for the flora of Albania.

Iris reichenbachii Heuff. – loc. 26: 8013

This species is not included in the recent Albanian floras (Demiri 1983; Vangjeli & al. 2000, 2003), but Dörfler (in Hayek 1924: 217) collected it near the eastern border of Albania: “Paštrik, felsige grasige Hänge in der Gipfelregion” (under the name *Iris bosniaca* Beck). The peak of Maja e Paštrikut (1988.4 m) lies at the border of Albania with Kosovo, c. 17 km NE from Kukës (NE Albania) and at about the same distance from Prizren (SW Kosovo). Our record is found about 65 km WNW of the above locality and is the first one of the species surely located in Albania. The species is otherwise known from N Greece (Mathew 1991) and Montenegro (e.g., Beck & Szyszylowicz 1889: 49).

Lagoecia cuminoides L. – loc. 20: 9200

A Mediterranean species. Baldacci (1899: 169) recorded it from close to Ioannina in N Greece but nowhere from Albania. It is not included in any Albanian flora (Demiri 1983; Qosja & al. 1992; Vangjeli 2003). New for the flora of Albania.

Malus florentina C. K. Schneid. – loc. 5: 10185, loc. 6: 14355, loc. 9: 14381, loc. 11: 14251

The species has an uncertain taxonomic status (Browicz 1970). It has been placed in eight different genera and Browicz (1983) supposed its hybrid origin, but on the base of morphological and experimental data it belongs to a new section of *Malus* (*M. sect. Florentinae*, Qian & al. 2008). It is distributed in Italy, Serbia, Macedonia, Greece and Turkey. In Greece (Christensen 1995) and Serbia (Tomović & al. 2003) the species is very rare and vulnerable, whereas in Macedonia it seems to be quite common (Browicz 1983). The only record of the species from Albania is by Josef Schneider (in Ronniger 1927), from near Lushnje and it is included in the Albanian red list as a “rare” species (Vangjeli & al. 1995: 101). Our records represent four new localities of this species in Albania.

Myosotis refracta Boiss. – loc. 3: 13631, loc. 13: 14315, loc. 25: 8080, loc. 31: 13195

In Europe the species is distributed locally in S Spain, and otherwise in the E Mediterranean region including Greece (Strid 1991: 50) and Cyprus (Meikle 1985: 1144, but rare). It is not reported from Serbia (Josifović 1974) or Bulgaria (Peev & Andreev 1989) and not included in the Albanian floras (Demiri 1983; Qosja & al. 1996; Vangjeli 2003). It has, however, once been reported by Alston & Sandwith (1940) from near Borsh (SW Albania, District of Saranda). Our records are from various

parts of Albania, from different altitudes (but everywhere on limestone), so the species may have a wider distribution in the whole country.

Ornithogalum montanum Cirillo – loc. 1: 13325, 4: 13230, loc. 17: 13278, 18: 13292

This variable taxon is known from N Greece (Strid & Tan 1991) near the southern border with Albania. All our new occurrences are from the southern part of Albania with an altitudinal range of 332–957 m. New for the flora of Albania.

Ornithogalum oligophyllum E. D. Clarke – 12: 11439, 21: 9329, loc. 30: 7660

Demiri (1983) discusses this SE European species in his field guide, but it is omitted by Vangjeli & al. (2000) and Vangjeli (2003). Baldacci (1898) found it in N Greece, near the Albanian border (Miticikli and Olycika), but nowhere in Albania. The presence of this species in Albania is confirmed by our records.

Oxytropis pilosa (L.) DC. – loc. 10: 10270

A Central and E European species with very scattered distribution in the Balkans. From Greece it is known from a single collection (Pinovon; Strid 1986a: 479), it is not reported from Macedonia (Micevski & Matevski 2001) but from W Bulgaria (Assyov & Petrova 2006). Its new locality (Mt Kameniku) lies at the Albanian-Greek border in the Albanian part of the mountain. New for the flora of Albania.

Potamogeton coloratus Hornem. – loc. 16: *s.n.* (det. A. Mesterházy)

A European or cosmopolitan species (Valentine 1980) with numerous non-European occurrences (in Asia, America and Australia). It is usually rare and endangered in Europe (e.g., Korneck & al. 1996; Holub 2000; Holub & Procházka 2000; Király 2007). New for the flora of Albania.

Pulsatilla halleri (All.) Willd. – loc. 15: 13913

This taxon is not included in any Albanian flora (Demiri 1983; Paparisto & al. 1988; Vangjeli & al. 2003), but surprisingly appears in the red data book of Albania (Vangjeli & al. 1995) as an extinct taxon. Later Tutin & al. (2002) reported it from Albania with question mark. Our record confirms its occurrence and current presence in Albania.

Sibbaldia parviflora Willd. – loc. 8: *obs.*, loc. 27: 8444, loc. 28: 8475

A species widely distributed in Central Asia. Its first European record is from Galičica Mts (SW Macedonia; Ball 1968). Later it became known from N Greece (Persson 1986) and subsequently from SW Bulgaria (Mt Osogovska; Dimitrov 1998). Demiri (1983) discusses *S. procumbens*, but it is not clear whether the report really refers to that Central European species or perhaps to *S. parviflora*.

At loc. 8 G. Király took a photo of the plant, but since the species was not recognised in the field, it was not collected and the exact coordinates were not documented. Our records extend the area of the species to the west. New for the flora of Albania.

Sorbus xpinatifida (Sm.) Düll – loc. 7: 10005, loc. 29: *s.n.*

This very variable F1 hybrid of *Sorbus aucuparia* and *S. aria* agg. (Fay & Rich 2007; Baksay 1999) is distributed in W (Preston & al. 2002; Düll 1961) and Central Europe (Kárpáti 1960; Kovanda 1996) and in the Balkans (Valjev 1973), in those places where the parent species are present. However, it is very rare (Düll 1961). New for the flora of Albania

Thesium bergeri Zucc. – loc. 19: 9402

The only record of this species from Albania dates back to Baldacci (Hendrych 1996), but it is not included in the recent Albanian floras (Demiri 1983; Paparisto & al. 1988; Vangjeli 2003). The collecting site is “in saxosis ad Vromonero distr. Ljaskovik” (Baldacci 1899: 349). Baldacci’s “Vromonero” is in/near the valley of the river Sarandoporos (see Baldacci 1899: 17, *Alyssum alpestre* L. var. *suffrutescens* Boiss.: “In saxosis et arenosis alveo fl. Sarandoporos ad Vromonero distr. Ljaskovik”) and situated somewhere at the foot of Mt Maria (Mt Vashës, 1638.9 m) (see Baldacci 1899: 173: “in silvaticis sub m. Mariá infra Vromonero et Dobrá distr. Ljaskovik”). Both localities (Sarandoporos river and Mt Maria) are located today at the border of Albania with Greece, the half of the valley of Sarandoporos river and half of Mt Maria being currently in Greece. According to Lefe & Kabo (2001: 319) “Vromonero” is a hot spring in the district Kolonjë, which includes the surroundings of Leskovik as well. Our record is from about 25 km NW of the Baldacci’s locality and confirms the occurrence of the species in Albania.

Valerianella microcarpa Loisel. – loc. 23: 10680a

A Mediterranean species, which is in the Balkans known exclusively from Greece and Bulgaria (Ernet & Richardson 1976; Assyov & Petrova 2006). In Albanian floras (Demiri 1983; Qosja & al. 1996; Vangjeli & al. 2003) only the related *Valerianella eriocarpa* is included, on the basis of the description and figures in its strict sense (*V. eriocarpa* Desv. s.str.). The locality of *V. microcarpa* is situated in N Albania, near the border with Montenegro, thus it may be expected to occur in this latter country as well. New for the flora of Albania.

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References

- Alston A. H. G. & Sandwith N. Y. 1940: Results of two botanical expeditions to S Albania. – *J. Bot.* **74**: 219–246.
- Anon. 1983: Harta gjeologjike e RPS të Shqipërisë 1: 200 000. – Tirana.
- Assyov B. & Petrova A. (ed.) 2006: Conspectus of the Bulgarian vascular flora. Distribution maps and floristic elements, ed. 3. – Sofija.
- Baksay L. 1999: *Sorbus*-fajok embriológiai-sejttani és származási vizsgálata. – *Kitaibelia* **4(1)**: 11–16.
- Baldacci A. 1898: Rivista della collezione botanica fatta nel 1895 in Albania. – *Nuovo Giorn. Bot. Ital.*, ser. 2, **5**: 5–44.
- Baldacci A. 1899a: Rivista della collezione botanica fatta nel 1896 in Albania. – *Nuovo Giorn. Bot. Ital.*, ser. 2, **6**: 5–37, 149–187, 333–356.
- Ball P. W. 1968: *Sibbaldia*. – P. 47 in: Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (ed.), *Flora europaea* **2**. – Cambridge, etc.
- Barina Z. & Pifkó D. 2008a: Distribution of *Sedum amplicaula* subsp. *tenuifolium* in Albania. – *Bul. Shkencaet Nat.* **5**: 206–214.
- Barina Z. & Pifkó D. 2008b: New or interesting floristic records from Albania. – *Acta Bot. Hung.* **50**: 231–236. [CrossRef](#)
- Barina Z. & Pifkó D. 2008c: Additions and amendments to the flora of Albania. – *Willdenowia* **38**: 455–464. [CrossRef](#)
- Beck G. & Szyszylowicz I. 1889: Plantas a Dr Ign. Szyszylowicz in itinere per Cernagoram et in Albania adiacenti anno 1886 lectas. – *Rozpr. Spraw. Posiedzeń Wdz. Mat.-Przyr. Akad. Umiejętn.* **19**: 1–166.
- Browicz K. 1970: '*Malus florentina*', its history, systematic position and geographical distribution. – *Fragm. Flor. Geobot.* **16**: 61–83.
- Browicz K. 1983: *Malosorbus florentina* (Zuccagni) Browicz (*Rosaceae*) in Greece. – *Ann. Musei Goulandris* **6**: 27–35.
- Christensen K. 1995: *Malosorbus florentina* (Zuccagni) Browicz. – Pp. 358–359 in: Phitos D., Strid A., Snogerup S. & Greuter W. (ed.), *The red data book of rare and threatened plants of Greece*. – Athens.
- Cristofolini G. 1991: Taxonomic revision of *Cytisus* Desf. sect. *Tubocytisus* DC. (*Fabaceae*). – *Webbia* **45**: 187–219.
- Demiri M. 1983: Flora ekskursioniste e Shqipërisë. – Tiranë.
- Diklić I. 1975: *Liliaceae* A. L. Juss. – Pp. 492–624 in: Josifović M. (ed.), *Flora SR Srbije* **7**. – Beograd.
- Dimitrov D. 1998: A supplement to the flora of the Balkan Peninsula. – *Phytol. Balcan.* **4(3)**: 57–60.
- Düll R. 1961: Die *Sorbus*-Arten und ihre Bastarde in Bayern und Thüringen – *Ber. Bayer. Bot. Ges.* **34**: 11–65.
- Ernet D. & Richardson I. B. K. 1976: *Valerianella* Miller. – Pp. 48–52 in: Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (ed.), *Flora europaea* **4**. – Cambridge, etc.
- ESRI 2002: ArcGIS. – <http://www.esri.com>
- Fay M. F. & Rich T. C. G. 2007: Parentage of endemic *Sorbus* L. (*Rosaceae*) species in the British Isles, evidence from plastid DNA. – *Bot. J. Linn. Soc.* **154**: 291–304. [CrossRef](#)
- Fiori A. 1928: Contribuzione alla flora della' isola di Seseo nell' Adriatico. – *Nuovo Giorn. Bot. Ital.*, ser. 2, **34**: 1007–1010.
- Garbari F. 1982: *Bellevalia* Lapeyr., Giacinto (1093). – Pp. 374–375 in: Pignatti S. (ed.), *Flora d'Italia* **3**. – Bologna.
- Generalnyj Shtab (ed.) 1986: Albania 1: 50 000. – Moskva.
- Gibbs P. E. 1969: *Chamaecytisus* Link – Pp. 16–21 in: Davis P. H. (ed.), *Flora of Turkey and the East Aegean Islands* **3**. – Edinburgh.
- Hayek A. 1924: Zweiter Beitrag zur Kenntnis der Flora von Albanien. – *Denkschr. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* **99**: 101–224.
- Hendrych R. 1996: *Thesium bergeri*, eine Art des östlichen Mittelmeergebietes. – *Preslia* **68**: 31–40.
- Heywood V. H. & Frodin D. G. 1968: *Chamaecytisus* Link. – Pp. 90–93 in: Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (ed.), *Flora europaea* **2**. – Cambridge, etc.
- Holub J. 2000: The Black List of taxa disappeared from the floras of the Czech and Slovak Republics. – *Preslia* **72**: 167–186.
- Holub J. & Procházka F. 2000: Red List of vascular plants of the Czech Republic, 2000. – *Preslia* **72**: 187–230.
- Josifović, M. 1972, 1974: *Flora SR Srbije* **4, 7**. – Beograd.
- Kárpáti Z. 1960: Die *Sorbus*-Arten Ungarns und der angrenzenden Gebiete. – *Feddes Repert.* **62(2–3)**: 71–334.
- Király G. (ed.) 2007: Red list of the vascular flora of Hungary. – Sopron.
- Korneck D., Schnittler M. & Vollmer I. 1996: Rote Liste der Farn- und Blütenpflanzen (*Pteridophyta* und *Spermatophyta*) Deutschlands. – *Schriftenreihe Vegetationsk.* **28**: 21–187.
- Kovanda M. 1996: New taxa of *Sorbus* from Bohemia (Czech Republic). – *Verh. Zool. Bot. Ges. Österreich* **133**: 319–345.
- Kuzmanov B. 1976: *Chamaecytisus* Link – Pp. 74–119 in: Jordanov D. (ed.), *Flora na Republika Bălgarija* **6**. Sofia.
- Lafe E. & Kabo M. 2001: Fjalor i emrave gjeografikë të Republikës së Shqipërisë. – Tiranë.

- Mathew B. 1991: *Iris* L. – Pp. 719–722 in: Strid A. & Tan K. (ed.), Mountain flora of Greece **2**. – Edinburgh.
- Meikle R. D. 1985: Flora of Cyprus **2**. – Kew.
- Micevski K. & Matevski V. 2001: *Oxytropis* DC. – Pp. 1193–1198 in: Micevski K. (ed.), The flora of the Republic of Macedonia **1.5**. – Skopje.
- Micevski K. 2001: The flora of the Republic of Macedonia **1.5**. – Skopje.
- Newman D. & Newman L. 2005: Ozi Explorer version 3.95.4k. – <http://www.ozieexplorer.com/>
- Paparisto K., Demiri M., Mitrushki I. & Qosja X. 1988: Flora e Shqipërisë **1**. – Tiranë.
- Peev D. & Andreev N. 1989: *Myosotis* L. – Pp. 184–211 in: Jordanov D. (ed.), Flora na Republika Bălgarija **9**. – Serdicae.
- Persson J. 1986: *Sibbaldia* L. – P. 415 in: Strid A. (ed.), Mountain flora of Greece **1**. – Cambridge.
- Preston C. D., Pearman D. A. & Dines T. D. 2002: New atlas of the British and Irish flora. – Oxford.
- Qian G., Liu L., Hong D. & Tang G. 2008: Taxonomic study of *Malus* section *Florentinae* (*Rosaceae*). – Bot. J. Linn. Soc. **158**: 223–227. [CrossRef](#)
- Qosja X., Paparisto K., Demiri M., Vangjeli J. & Balza E. 1992: Flora e Shqipërisë **2**. – Tiranë.
- Qosja X., Paparisto K., Vangjeli J. & Ruci B. 1996: Flora e Shqipërisë **3**. – Tiranë.
- Ronniger K. 1927: *Sorbus florentina* (Zuccagni) Nyman in Albanien. – Verhandl. Zool.-Bot. Ges. **57**: 99–102.
- Schljakov R. N. 1989: *Pilosella*. – Pp. 498–632 in: Tzvelev N. N. (ed.), Flora of Russia. The European part and bordering regions **8**. – Leningrad.
- Shuka L. & Jahollari N. 2007: Lloje bimore të rralla dhe të kërcënuara nga lugina e Gjergjevicës (Korçë) [Rare and threatened plant species from Gjergjevicë valley (Korçë)]. – Bul. Mat. Shkencat Nat. **4**: 116–125.
- Stearn W. T. 1980: *Allium* L. – Pp. 49–69 in: Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M., Webb D. A.: Flora europaea **5**. – Cambridge, etc.
- Strid A. 1986a: *Oxytropis* DC. – Pp. 478–480 in: Strid A. (ed.), Mountain flora of Greece **1**. – Cambridge.
- Strid A. 1986b: *Chamaecytisus* Link – Pp. 448–451 in: Strid A. (ed.), Mountain flora of Greece **1**. – Cambridge.
- Strid A. 1991: *Myosotis* L. – Pp. 47–57 in: Strid A. & Tan K. (ed.), Mountain flora of Greece **2**. – Edinburgh.
- Strid A. & Tan K. 1991: Mountain flora of Greece **2**. – Edinburgh.
- Tan K. & Iatrou G. 2001: Endemic plants of Greece. The Peloponnese. – København.
- Tavakkoli Z. & Assadi M. 2007: Notes on the genus *Hieracium* (*Asteraceae*) in Iran. – Iran. J. Bot. **31(2)**: 89–91.
- Tomović G., Niketić M. & Stevanović V. 2003: *Malisorbus florentina* (*Rosaceae-Maloideae*): Distribution, synecology and threatened status in Serbia. – Phytion (Horn) **43**: 295–306.
- Tutin T. G. 2002: *Pulsatilla* Miller. – In: Tutin T. G., Burges N. A., Chater A. O., Edmondson, J. R., Heywood V. H., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (ed.), Flora europaea, ed. 2, **1**. – Cambridge, etc.
- Valentine D. H. 1980: *Potamogeton* L. – Pp. 7–11 in: Tutin T. G., Heywood V. H., Burges N. A., Moore D. M., Valentine D. H., Walters S. M., Webb D. A. (ed.), Flora europaea **5**. – Cambridge, etc.
- Valëv, S. 1973: *Sorbus* L. – Pp. 351–365 in: Jordanov D. (ed.), Flora na Republika Bălgarija **5**. – Sofia.
- Vangjeli, J. 2003: Udhëheqës fushor i florës së Shqipërisë. [Field guide to the Albania flora]. – Tiranë.
- Vangjeli J., Ruci B. & Mullaj A. 1995: Libri i kuq. Bimët e kërcënuara a të rralla të Shqipërisë [Red book. Threatened and rare plants species of Albania] – Tiranë.
- Vangjeli J., Ruci B., Mullaj A., Paparisto K. & Qosja Xh. 2000: Flora e Shqipërisë **4**. – Tiranë.