

New floristic records in the Balkans: 17*

Compiled by Vladimir Vladimirov¹, Feruzan Dane² & Kit Tan³

¹ Department of Plant and Fungal Diversity and Resources, Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: vdvlad@bio.bas.bg

² Department of Biology, Faculty of Science, University of Trakya, 22030 Edirne, Turkey, e-mail: feruzandane@gmail.com

³ Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bio.ku.dk

Abstract: New chorological data are presented for 142 species and subspecies from Bulgaria (70–93, 108–130), Greece (4–19, 23–69, 94–107, 131–142), and Turkey-in-Europe (1–3, 20–22). The taxa belong to the following families: *Amaranthaceae* (20–22), *Amaryllidaceae* (62), *Apiaceae* (4, 25, 73, 95), *Araceae* (63, 103), *Aspleniaceae* (94), *Asteraceae* (5, 23, 26–31, 70, 74–76, 96, 124–127, 131–134), *Betulaceae* (109), *Boraginaceae* (32), *Brassicaceae* (24, 33–35, 71, 77, 135), *Campanulaceae* (36, 78, 79), *Caryophyllaceae* (6, 37–40, 72, 80, 114, 136, 137), *Chenopodiaceae* (7, 97, 128), *Cupressaceae* (108), *Cyperaceae* (13, 87), *Dipsacaceae* (138), *Fabaceae* (1–3, 41, 81, 82, 98, 139), *Iridaceae* (64, 65, 88), *Juncaceae* (14, 15), *Lamiaceae* (8, 42–45, 99, 100), *Liliaceae* s.l. (66–69, 104, 105, 113, 142), *Linaceae* (9), *Loranthaceae* (46), *Monotropaceae* (83, 110), *Moraceae* (129), *Onagraceae* (47), *Orchidaceae* (89, 90, 106, 107), *Orobanchaceae* (101), *Phytolaccaceae* (48), *Plumbaginaceae* (49), *Poaceae* (16, 17, 91–93, 118–123, 130), *Polygalaceae* (50), *Potamogetonaceae* (18), *Ranunculaceae* (51, 52), *Rhamnaceae* (10), *Rosaceae* (11, 12, 53–55, 84, 111, 115–117, 140), *Rubiaceae* (56, 57), *Ruppiaceae* (19), *Salicaceae* (58), *Saxifragaceae* (85, 112), *Scrophulariaceae* (59, 60, 86), *Solanaceae* (61), *Thymelaeaceae* (102) and *Verbenaceae* (141).

The publication includes contributions by M. Aybeke (1), M. Aybeke, C. Kurt & A. Semerci (2, 3), B. Biel & Kit Tan (4–19), F. Dane & G. Koşanay (20–22), D. Dimitrov & V. Vutov (23, 24), K. Giannopoulos, Kit Tan & G. Vold (25–69), V. Goranova, K. Vassilev & H. Pedashenko (70–72), A. Petrova, N. Getova, N. Grozeva & D. Venkova (73–93), K. Polymenakos & Kit Tan (94–107), A. Tashev (108–113), K. Vassilev (114–117), K. Vassilev & H. Pedashenko (118–123), V. Vladimirov (124–130), G. Zarkos, V. Christodoulou & Kit Tan (131–142).

This is the seventeenth report in a series dealing with the new chorological data on vascular plants in the Balkans. For details on the presentation of information see *Phytologia Balcanica*, vol. 12(1), pp. 107–108 and vol. 12(2), p. 279.

*Reports for Bulgaria have been reviewed by V. Vladimirov, for Greece by Kit Tan and for Turkey-in-Europe by F. Dane.

Report 1

Mehmet Aybeke

Department of Biology, Faculty of Science, University of Trakya, Balkan campus, 22030 Edirne, Turkey,
e-mail: mehmetaybeke@yahoo.com

Fabaceae

1. *Lathyrus setifolius* L.

Tu(E) A1(E) Edirne, Süloğlu, Geçkinli village, in a pasture, 183 m, 41°44'46.9"N, 26°52'13.5"E, 02.06.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*; Edirne, Center, Hıdırağa village, in a pasture, 123 m, 41°44'00"N, 26°41'00"E, 09.06.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 1117).

New for European Turkey. So far the species has not been collected in the Trakya region, but collected in Anatolia, A1(A) Çanakkale, A5 Samsun, Amasya, B1 İzmir, C1 Aydın, C2 Muğla, C3 Antalya, C4 İçel (Davis 1970). In the International Legume Database website (ILDIS) the taxon is reported for Bulgaria and Greece but not for European Turkey.

Acknowledgements. Fieldwork was carried out in 2004 under the project TAGEM/04/04/01/002.

Reports 2–3

Mehmet Aybeke, Cengiz Kurt & Arif Semerci

Department of Biology, Faculty of Science,
University of Trakya, 22030 Edirne, Turkey,
e-mail: mehmetaybeke@yahoo.com

Fabaceae

2. *Vicia cracca* L. subsp. *cracca*

Tu(E) A1(E) Edirne: Centre, Elçili village, in a grassland, 101 m, 41°27'13.7"N, 26°38'38.1"E, 26.05.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 684).

New for A1(E) Edirne in European Turkey. So far the species has been reported for A2(E) Istanbul, Sarıyer (Davis 1970). In the International Legume Database website (ILDIS) the taxon is reported for Greece but not for European Turkey.

3. *Vicia villosa* subsp. *dasycarpa* (Ten.) Cav.

Tu(E) A1(E) Edirne: Keşan, Altıntaş village, in a grassland, 141 m, 41°01'00"N, 26°42'00"E,

12.05.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 388); Edirne, Uzunköprü, Eskiköy, 40 m, 41°20'11.5"N, 26°38'14.2"E, 26.05.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 520); Edirne, Uzunköprü, Yeniköy, 80 m, 41°20'41"N, 26°46'05"E, 02.06.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 672); Edirne, Süloğlu, Keramettin village, in a pasture, 188 m, 41°47'00"N, 26°58'00"E, 02.06.2004, coll. *M. Aybeke, C. Kurt, A. Semerci*, det. *M. Aybeke* (TTAE 735); Edirne, Lalapaşa, Hamzabeyli village, grassland, 391 m, 41°57'50"N, 26°38'39"E, 16.06.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*; Edirne, Lalapaşa village, in a pasture, 17.07.2003, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 1211); Edirne, Lalapaşa, Küçünlü village, in a pasture, 328 m, 41°56'00"N, 26°46'00"E, 01.07.2003, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 1316); Edirne, Meriç, Nasuhbey village, in a pasture, 43 m, 41°14'01.5"N, 26°20'22.7"E, 26.05.2004, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 1333); Edirne, Lalapaşa, Sinanköy village, in a pasture, 181 m, 41°48'00"N, 26°43'00"E, 03.06.2003, coll. *M. Aybeke, C. Kurt & A. Semerci*, det. *M. Aybeke* (TTAE 1420).

New for A1(E) Edirne in European Turkey. So far the species has been known from A2(E) Istanbul, Belgrad forest, Sarıyer (Davis 1970). In the International Legume Database website (ILDIS) the taxon is reported for European Turkey.

Acknowledgements. Fieldwork was carried out in 2003–2006 under the project TAGEM/04/04/01/002.

Reports 4–19

Burkhard Biel¹ & Kit Tan²

¹ Am Judengarten 3, D-97204 Höchberg, Germany,
e-mail: b.biel@arcor.de

² Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark,
e-mail: kitt@bio.ku.dk (author for correspondence)

This is the sixteenth report of new plant-records for the island of Samothraki (N Aegean islands, Nomos

Evrou, Eparchia Samothrakis) based on fieldwork carried out mainly in June and July 2011, supplemented with a few collections from earlier years. The records listed are all new to the island, or to the floristic region N Aegean (NAe) as circumscribed in *Flora Hellenica* (Strid & Tan 1997). The occurrence on the other N Aegean islands is also provided.

Apiaceae

4. *Daucus guttatus* Sm.

Gr Samothraki: SW of Kamariotissa, road margins and uncultivated fields in harbour area, 3 m, 40°28'40"N, 25°28'20"E, 02.07.2011, *B. Biel* 11.298.

Recorded from the island of Thasos in the N Aegean area. Widespread in Greece.

Asteraceae

5. *Otanthus maritimus* (L.) Hoffms. & Link (Fig. 1)

Gr Samothraki: W of Kamariotissa, shallow depression on the narrow peninsula of Akrotiri, 3 m, 40°28'23"N, 25°26'57"E, 04.07.2011, *B. Biel* 11.328.



Fig. 1. *Otanthus maritimus* (photo B. Biel).

Recorded from Thasos and Limnos. A large population, ca. 40 m² in size, was found on gravel.

Caryophyllaceae

6. *Stellaria pallida* (Dumort.) Piré

Gr Samothraki: S-SE of Therma, on *Pteridium* slopes between streams SE of Akoniamia, 820 m, 40°27'36"N, 25°36'56"E, 29.06.2011, *B. Biel* 11.267a.

Recorded from Thasos and Limnos. It was also noted E-SE of Alonia.

Chenopodiaceae

7. *Chenopodium foliosum* (Moench) Asch. [syn.: *Blitum virgatum* L.]

Gr Samothraki: W-SW of Kamariotissa, gravelly beach at southern edge of Ag. Andreas lagoon, 2 m, 40°27'53"N, 25°27'23"E, 27.06.2011, *B. Biel* 11.222.

New for N Aegean area and apparently the first report for the Greek islands.

Lamiaceae

8. *Micromeria nervosa* (Desf.) Benth.

Gr Samothraki: E of Kamariotissa, phrygana slope above uncultivated field, limestone, 40 m, 40°28'34"N, 25°28'48"E, 09.02.2011, *B. Biel* 11.041; *loc. ibid.*, 27.06.2011, *B. Biel* 11.235.

Recorded from Limnos and Ag. Evstratios.

Linaceae

9. *Linum corymbulosum* Rchb.

Gr Samothraki: NE of Kamariotissa, phrygana slope with shrubs above river, near Ambelia, 55 m, 40°29'09"N, 25°29'45"E, 27.06.2011, *B. Biel* 11.242.

Recorded from Limnos.

Rhamnaceae

10. *Rhamnus saxatilis* Jacq.

Gr Samothraki: S-SE of Therma, on *Pteridium* slopes between streams SE of Akoniamia, 820 m, 40°27'36"N, 25°36'56"E, 29.06.2011, *B. Biel* 11.267.

Recorded from Thasos.

Rosaceae

11. *Crataegus orientalis* M. Bieb.

Gr Samothraki: SE of Paleopolis, flat hill saddle with *Genista* shrubs, 910 m, 40°29'02"N, 25°33'07"E, 01.07.2011, *B. Biel* 11.291.

Recorded from Thasos. Three other localities E of Chora and SW of Therma.

12. *Prunus avium* L.

Gr Samothraki: SW of Therma, river valley with *Platanus* alluvial forest, 60 m, 40°29'43"N, 25°36'12"E, 02.07.2011, *B. Biel* 11.304.

Recorded from Thasos. Several large old trees were found within the forest west of the village.

Cyperaceae

13. *Cyperus eragrostis* Lam.

Gr Samothraki: W of Therma, wet road margins at bottom of valley, 100 m, 40°29'43"N, 25°36'04"N, 04.07.2011, *B. Biel* 11.325.

New for N Aegean area. First noted for Greece from Kerkira (Ionian islands) and later from Skiros (W Aegean islands). Another locality is NE of Kamariotissa.

Juncaceae

14. *Juncus minutulus* V.I. Krecz. & Gontsch.

Gr Samothraki: N-NE of Pachia Ammos, near source of Kousianda stream, basalt rock, 1140 m, 40°26'20"N, 25°36'23"E, 29.06.2007, *B. Biel* 07.315; N-NE of Pachia Ammos, meadows at source of Kousianda stream with waterfalls, on granitic substrate, 1050 m, 40°28'14"N, 25°35'17"E, 01.07.2010, *B. Biel* 10.797; NE of Pachia Ammos, small remnants of meadow below hill saddle, 850 m, 40°25'15"N, 25°37'45"E, 07.07.2011, *B. Biel* 11.362.

Recorded from Limnos.

15. *Luzula nodulosa* E. Mey.

Gr Samothraki: S-SE of Therma, rocky slope with *Pteridium* in ravine above Aetos, 850 m, 40°27'55"N, 25°37'16"E, 09.05.2010, *B. Biel* 10.395; N-NE of Pachia Ammos, gorge and slopes of Kousianda stream, 800 m, 40°25'21"N, 25°36'30"E, 16.05.2010, *B. Biel* 10.615; N-NE of Pachia Ammos, wet meadows and rocky ravine at source of Kousianda stream, 830 m, 40°25'23"N, 25°36'30"E, 06.07.2011, *B. Biel* 11.358.

New for the N Aegean area.

Poaceae

16. *Poa sterilis* M. Bieb.

Gr Samothraki: SW of Therma, mountainous cushion phrygana on rocky NW ridge of Fengari peak, 1510 m, 40°27'55"N, 25°35'01"E, 09.07.2011, *B. Biel* 11.380a.

New for the N Aegean area.

17. *Triticum durum* Desf.

Gr Samothraki: NE of Kamariotissa, grazed *Sarcopoterium*-phrygana and scrub on hill crest, on gravelly limestone and sandstone, 40 m, 40°29'20"N, 25°29'21"E, 01.05.2001, *B. Biel* 01.048; Kamariotissa, N of port, gravelly beach at village promenade, 2 m, 40°28'37"N, 25°28'20"E, 10.07.2011, *B. Biel* 11.386.

New for the N Aegean area.

Potamogetonaceae

18. *Potamogeton trichoides* Cham. & Schldl.

Gr Samothraki: N of Therma, brackish water pool directly behind gravelly beach east of port, 2 m, 40°30'12"N, 25°36'30"E, 02.07.2011, *B. Biel* 11.303.

New for the N Aegean area. Found in a large population, growing together with *Ruppia maritima*. Probably overlooked as it resembles *Ruppia* when not in fruit.

Ruppiaceae

19. *Ruppia maritima* L. (Fig. 2)

Gr Samothraki: W-SW of Kamariotissa, at northern edge of flat coastal lagoon, on sandy ground, 3 m, 40°28'16"N, 25°27'17"E, 11.06.2000, *B. Biel* 00.054; N of Therma, brackish water pool directly behind gravelly beach east of port, 2 m, 40°30'12"N, 25°36'30"E, 12.06.2000, *B. Biel* 00.072; *loc. ibid.*, 02.07.2011, *B. Biel* 11.302; N-NW of the village of Therma, seasonal pool in open phrygana beside the road junction to Therma, 5 m, 40°30'01"N, 25°36'30"E, 09.05.2001, *B. Biel* 01.086; W-SW of Kamariotissa, small sea-



Fig. 2. *Ruppia maritima* (photo B. Biel).

sonal pool east of Ag. Andreas lagoon, 3 m, 40°28'18"N, 25°27'25"E, 27.06.2011, *B. Biel* 11.216.

New for the N Aegean area. Two other localities were noted SW of Kamariotissa.

Cited vouchers are provisionally kept in the private herbarium of B. Biel at Höchberg (herb. Biel). We thank Prof. Hildemar Scholz (Berlin) for kindly identifying our *Poaceae* specimens.

Reports 20–22

Feruzan Dane & Gözde Koşanay

Department of Biology, Faculty of Science,
University of Trakya, 22030 Edirne, Turkey,
e-mail: feruzandane@yahoo.com,
gozdekorkmaz@windowslive.com

Amaranthaceae

20. *Amaranthus albus* L.

Tu(E) A1(E) Edirne: Musabeyli village, in a field, 109 m, 41°41'00"N, 26°40'00"E, 15.09.1989, coll. *F. Dane & N. Polat* (EDTU 3884).

New for A1(E). In the European Turkey so far the species has been known from A2(E) Istanbul (Aellen 1967).

21. *Amaranthus blitoides* S. Watson

Tu(E) A(1) Edirne: Musabeyli village, in a field, 109 m, 41°41'00"N, 26°40'00"E, 15.09.1989, coll. *F. Dane & N. Polat* (EDTU 3901).

New for A1(E). In the European Turkey so far the species has been known from A2(E) Istanbul (Aellen 1967).

22. *Amaranthus retroflexus* L.

Tu(E) A1(E) Edirne: Musabeyli village, in a dry field, 109 m, 41°41'00"N, 26°40'00"E, 15.09.1989, coll. *F. Dane & N. Polat* (EDTU 3887); Enez: Sutculer village, Sunflower farm, 5 m, 40°43'29"N, 26°04'57"E, 20.08.1994, coll. *M. Kireç* (EDTU 6981); Centre: Pazarkule Border gate, at the roadside, 74 m, 41°39'13"N, 26°29'20"E, 20.09.1999, coll. *N.Ç. Demirkan* (EDTU 7580); Karaagac: military road, 23 m, 41°39'28"N, 26°31'25"E, 25.09.1999, coll. *N.Ç. Demirkan* (EDTU 7581); Enez: Abdurrahim village, Ova site, Sunflower farm, 40 m, 40°38'31"N, 26°15'25"E, 19.06.1994, coll. *M. Kireç* (EDTU 10308).

New for A1(E).

Reports 23–24

Dimitar Dimitrov & Vassil Vutov

National Natural History Museum, Bulgarian Academy of Sciences, 1 Tsar Osvoboditel Blvd., 1000 Sofia, Bulgaria

Asteraceae

23. *Centaurea tymphaea* Hausskn.

Gr Mount Athos, 06.2007, coll. *V. Vutov* (SOM 167296).

Brassicaceae

24. *Brassica geniculata* (Desf.) Snogerup & B. Snogerup [syn. *Hirschfeldia incana* (L.) Lagr.-Foss.]

Gr Mount Athos, by the Zografou Monastery port, 05.05.2008, coll. *D. Dimitrov & V. Vutov* (SOM 166737).

Reports 25–69

Konstantinos Giannopoulos¹, Kit Tan² & Gert Vold³

¹ Dabaki 15, Pyrgos, Ilias 271 00, Greece

² Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bio.ku.dk (author for correspondence)

³ Botanical Garden, State Natural History Museum, Øster Farimagsgade 2C, DK-1353 Copenhagen K, Denmark

This is the third report of new plant records mainly from the prefecture of Iliia in western Peloponnese. The 45 records listed are new for the Eparchies of Iliias or Olimbias, or for Nomos Ilias or for other parts of the Peloponnese as detailed.

Apiaceae

25. *Bupleurum glumaceum* Sm.

Gr Nomos Ilias, Eparchia Olimbias: in vegetation along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31061 (herb. Kit).

New for Eparchia Olimbias.

Asteraceae

26. *Anthemis tinctoria* L.

Gr Nomos Ilias, Eparchia Olimbias: in vegetation along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31060 (herb. Kit).

New for eparchia and nomos. Ligules were absent in all the plants.

27. *Arctium lappa* L. (Fig. 3)

Gr Nomos & Eparchia Ilias: along road from Ag. Georgios to the village of Foloji, through the oak forest of Kapeli, 710 m, 37°46'N, 21°44'E, 04.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31101 (herb. Kit).

New for eparchia and nomos.



Fig. 3. *Arctium lappa* (photo K. Giannopoulos).

28. *Cichorium spinosum* L. (Fig. 4)

Gr Nomos & Eparchia Ilias: coastal rocks at Merkouri vineyard near Korakohori, 3 m, 37°40'N, 21°18'E, 04.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31083 (herb. Kit).

New for eparchia and nomos. Distributed mainly on the S Aegean islands.

29. *Cirsium candelabrum* Griseb.

Gr Nomos Ilias, Eparchia Olimbias: along road from Andritsena to Vasses, 970 m, 37°28'N, 21°54'E, 01.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* obs.; gorge of river Neda, 310 m, 37°23'N, 21°50'E, 02.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31170 (herb. Giannopoulos); Nomos Achaïas, Eparchia Egialias: national road junction near

Pteri, 20 km from Egio, 400 m, 38°09'N, 22°04'E, 06.10.2011, *Kit Tan & G. Vold* obs.

New for Nomos Ilias and Eparchia Egialias (nomos Achaïas). The Ilias record is apparently the first for W Peloponnese.



Fig. 4. *Cichorium spinosum* (photo K. Giannopoulos).

30. *Hypochoeris cretensis* (L.) Bory & Chaub.

Gr Nomos Ilias, Eparchia Olimbias: outskirts of Andritsena, along road to Vasses, 770 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31037 (herb. Kit).

New for Eparchia Olimbias although widely distributed in Greece.

31. *Inula verbascifolia* (Willd.) Hausskn.

Gr Nomos & Eparchia Ilias: between Kalivia and Kriovrysi, 810 m, 37°53'N, 21°45'E, 25.09.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31120 (herb. Kit).

New for eparchia and nomos.

Boraginaceae

32. *Anchusa undulata* subsp. *hybrida* (Ten.) Bég.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31068 (herb. Kit).

New for Eparchia Olimbias although widespread in Greece.

Brassicaceae

33. *Arabis sagittata* (Bertol.) DC.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31075 (herb. Kit).

New for Eparchia Olimbias.

34. *Erysimum asperulum* Boiss. & Heldr.

Gr Nomos Ilias, Eparchia Olimbias: in vegetation along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31050 (herb. Kit).

New for Eparchia Olimbias; apparently southernmost distribution of this Greek endemic.

35. *Malcolmia orsiniana* subsp. *serbica* (Pančić) Greuter & Burdet

Gr Nomos Ilias, Eparchia Olimbias: in vegetation along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31058a (herb. Kit).

New for eparchia, nomos and also for the Peloponnese.

Campanulaceae**36. *Campanula phrygia*** Jaub. & Spach

Gr Nomos & Eparchia Ilias: ca. 2 km NE of Kamena, small cultivated allotment near the Lefkianias river, 170 m, 37°39'N, 21°44'E, 02.07.2011, *Kit Tan, G. Vold, K. Giannopoulos & G. Vendras* 31013 (herb. Kit).

New for eparchia and nomos.

Caryophyllaceae**37. *Cerastium candidissimum*** Correns

Gr Nomos Messinias, Eparchia Trifilias: Mt Lykaion, 1330 m, 37°27'N, 21°58'E, 01.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31144 (herb. Kit).

New for Eparchia Trifilias. In Nomos Messinias, only known from Mt Taigetos in Eparchia Kalamon.

38. *Dianthus viscidus* Bory & Chaub.

Gr Nomos & Eparchia Ilias: along road from Lalas to Bodini (Nea Persena), on plateau of Mt Foloji, 770 m, 37°44'N, 21°45'E, 04.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31092 (herb. Kit); Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31074 (herb. Kit).

New for respective eparchies and nomos and first records for W Peloponnese.

39. *Petrorhagia graminea* (Sm.) P.W. Ball & Heywood (Fig. 5)

Gr Nomos Ilias, Eparchia Olimbias: ancient Figalia, temple of Athena, 520 m, 37°23'N, 21°50'E, 02.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31168 (herb. Kit); *loc. ibid.*, 12.11.2011, *K. Giannopoulos* s.n. (herb. Giannopoulos).

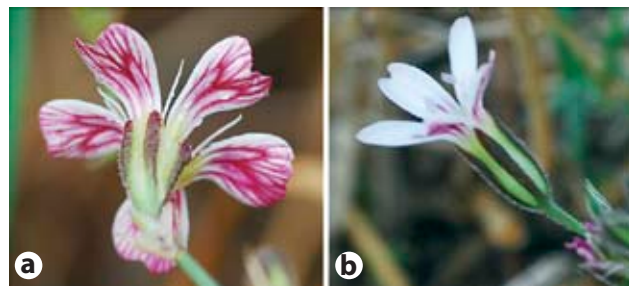


Fig. 5. *Petrorhagia graminea*: **a** – with epicalyx bracts, **b** – without epicalyx bracts (photo K. Giannopoulos).

New for Eparchia Olimbias. The presence or absence of epicalyx bracts seems to be the main criterion used to distinguish *P. saxifraga* and *P. graminea*; in the latter they are reported to be absent. The plants were in full flower by mid-November.

40. *Velezia rigida* L.

Gr Nomos Ilias, Eparchia Olimbias: along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31057 (herb. Kit).

New for Eparchia Olimbias.

Fabaceae**41. *Gonocytisus dirmilensis*** Hub.-Mor. (Fig. 6).

Fig. 6. *Gonocytisus dirmilensis* (photo K. Giannopoulos).

Gr Nomos Ilias, Eparchia Olimbias: in vegetation along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31063 (herb. Giannopoulos, herb. Kit); *loc. ibid.*, 19.09.2011, *Kit Tan & G. Vold* 31113 (ATH, C).

New for eparchia, nomos and also for the Peloponnese. This species, considered endemic to SW Anatolia, was first collected in Greece nearly 20 years ago, and until now it was known from only one locality and one gathering in Sterea Ellas, south-central Greece (30.07.1992, *Strid* 33809). It was with some surprise that we found it growing in the Peloponnese. Unless flowering, the shrub is not conspicuous and easily overlooked. However, when flowering, it is “camouflaged” to some extent by *Spartium junceum* and other yellow-flowered shrubs in the vicinity.

Lamiaceae

42. *Micromeria cremnophila* Boiss. & Heldr.

Gr Nomos & Eparchia Ilias: Abulas, ca. 2 km E of Vasilaki, 180 m, 37°38'N, 21°47'E, 02.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31020 (herb. Kit).

New for eparchia, nomos and also for the Peloponnese.

43. *Scutellaria rupestris* subsp. *parnassica* (Boiss.) Greuter & Burdet

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31069 (herb. Kit).

New for Eparchia Olimbias.

44. *Teucrium chamaedrys* L.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31067 (herb. Kit).

New for Eparchia Olimbias.

45. *Teucrium scordium* subsp. *scordioides* (Schreb.) Arcang.

Gr Nomos & Eparchia Ilias: ravine of Lefkianias river, between Kamena and Vilia, 170–190 m, 37°39'N, 21°44'E, 02.07.2011, *Kit Tan, G. Vold, K. Giannopoulos & G. Vendras* 31005 (herb. Kit).

New for eparchia and nomos.

Loranthaceae

46. *Viscum album* subsp. *abietis* (Wiesb.) Abrom.

Gr Nomos & Eparchia Ilias: plateau of Astras, NW of Mt Lambda, 1410 m, 37°54'N, 21°47'E,

25.09.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31124 (herb. Kit).

New for eparchia and nomos, first record for W Peloponnese. Hemi-parasitic on the lower branches of *Abies cephalonica*.

Onagraceae

47. *Epilobium dodonaei* Vill.

Gr Nomos Achaïas, Eparchia Egialias: roadside 7 km from Selinous to Pirgaki, near the village of Achladia, in openings of *Pinus halepensis* woodland, 780 m, 38°10'N, 22°05'E, 06.10.2011, *Kit Tan & G. Vold* 31175 (herb. Kit).

New for Eparchia Egialias.

Phytolaccaceae

48. *Phytolacca americana* L.

Gr Nomos Ilias, Eparchia Olimbias: outskirts of Andritsena, along road to Vasses, 770 m, 37°28'N, 21°54'E, 01.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31129 (herb. Kit).

New for Eparchia Olimbias.

Plumbaginaceae

49. *Armeria canescens* (Host) Boiss.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31072 (herb. Kit).

New for eparchia and nomos, first record for W Peloponnese.

Polygalaceae

50. *Polygala alpestris* Rchb. (Fig. 7)

Gr Nomos & Eparchia Ilias: heavily grazed area on Mt Lambda, SE of Astras peak (1686 m), 1360 m, 37°54'N, 21°49'E, 16.07.2011, *K. Giannopoulos* s.n. (herb. Giannopoulos, det. Kit Tan, July 2011).

New for eparchia and nomos, first record for W Peloponnese. In the Peloponnese, recorded only from Mt Killini (Nomos Korinthias) and Mt Chelmos (Nomos Achaïas).

Ranunculaceae

51. *Delphinium hellenicum* Pawł. (Fig. 8)

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31066 (herb. Kit); Skliava, 40 m, 37°37'N, 21°38'E, 02.10.2011, *Kit Tan, G. Vold & K. Giannopoulos* 31157 (herb. Kit).

New for Eparchia Olimbias.



Fig. 7. *Polygala alpestris* (photo K. Giannopoulos).

52. *Delphinium peregrinum* L.

Gr Nomos & Eparchia Ilias: ca. 2 km NE of Kamena, small allotment near the Lefkianias river, 170 m, 37°39'N, 21°44'E, 02.07.2011, *Kit Tan*, *G. Vold*, *K. Giannopoulos* & *G. Vendras* 31015 (herb. Kit).

New for Eparchia Ilias.

Rosaceae

53. *Aremonia agrimonoides* subsp. *pouzarii* Skalický

Gr Nomos & Eparchia Ilias: along road from Ag. Georgios to the village of Foloji, through the oak forest of Kapeli, 750 m, 37°44'N, 21°44'E, 04.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31098 (herb. Kit).

New for eparchia and nomos.

54. *Geum urbanum* L.

Gr Nomos & Eparchia Ilias: along road from Ag. Georgios to the village of Foloji, through the oak forest of Kapeli, 750 m, 37°44'N, 21°44'E, 04.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31099 (herb. Kit).

New for eparchia and nomos, first record for W Peloponnese.



Fig. 8. *Delphinium hellenicum* (photo K. Giannopoulos).

55. *Potentilla micrantha* DC.

Gr Nomos & Eparchia Ilias: along road from Ag. Georgios to the village of Foloji, through the oak forest of Kapeli, 750 m, 37°44'N, 21°44'E, 04.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31096 (herb. Kit).

New for eparchia and nomos.

Rubiaceae

56. *Crucianella angustifolia* L.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31071 (herb. Kit).

New for Eparchia Olimbias.

57. *Galium speciosum* Krendl

Gr Nomos & Eparchia Olimbias: outskirts of Andritsena, along road to Vasses, 770 m, 37°28'N, 21°54'E, 03.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31035 (herb. Kit).

New for eparchia, nomos and also for the Peloponnese. So far, recorded only from mainland Greece, viz., N & S Pindos, North Central and Sterea Ellas (near Karpenision) so the disjunct distribution is of some interest.

Salicaceae**58. *Populus nigra* L. subsp. *nigra***

Gr Nomos Ilias, Eparchia Olimbias: along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 19.09.2011, *Kit Tan* & *G. Vold* 31112 (herb. Kit).

New for eparchia and nomos.

Scrophulariaceae**59. *Odontites vernus* (Bellardi) Dumort.**

Gr Nomos Ilias, Eparchia Olimbias: along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 19.09.2011, *Kit Tan* & *G. Vold* 31110 (herb. Kit); *loc. ibid.*, 01.10.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* obs.

New for eparchia and nomos.

60. *Veronica chamaedrys* subsp. *chamaedryoides* (Bory & Chaub.) M.A. Fisch.

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N, 21°55'E, 03.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31073 (herb. Kit).

New for eparchia and nomos.

Solanaceae**61. *Physalis ixocarpa* Hornem.**

Gr Nomos Ilias, Eparchia Olimbias: along road from Andritsena to Vasses, 920 m, 37°28'N, 21°54'E, 19.09.2011, *Kit Tan* & *G. Vold* 31111 (herb. Kit).

New for eparchia and nomos.

Amaryllidaceae**62. *Sternbergia colchiciflora* Waldst. & Kit.**

Gr Nomos & Eparchia Ilias: plateau of Astras, NW of Mt Lamba, 1410 m, 37°54'N, 21°47'E, 25.09.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31125 (herb. Kit).

New for eparchia and nomos.

Araceae**63. *Biarum tenuifolium* (L.) Schott**

Gr Nomos & Eparchia Ilias: plateau of Astras, NW of Mt Lamba, 1410 m, 37°54'N, 21°47'E, 25.09.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31126 (herb. Kit).

New for Eparchia Ilias; recorded recently from Mt Minthi in Eparchia Olimbias (*Giannopoulos* & al. 2011: 253-254).

Iridaceae**64. *Crocus cancellatus* Herb.**

Gr Nomos Ilias, Eparchia Olimbias: valley between Andritsena and Vasses, 1110 m, 37°27'N,

21°55'E, 22.10.2011, *K. Giannopoulos* s.n. (herb. *Giannopoulos*, det. *Kit Tan*, October 2011).

New for eparchia and nomos, first record for W Peloponnese.

65. *Crocus hadriaticus* Herb.

Gr Nomos Ilias, Eparchia Olimbias: outside Vresto village near Mt Minthi, 520 m, 37°30'N, 21°48'E, 22.10.2011, *K. Giannopoulos* s.n. (herb. *Giannopoulos*, det. *Kit Tan*, October 2011).

New for Eparchia Olimbias, the only other record from Nomos Ilias (and W Peloponnese) is from Eparchia Ilias.

Liliaceae s.l.**66. *Allium ampeloprasum* L.**

Gr Nomos & Eparchia Ilias: ca. 2 km NE of Kamena, small cultivated allotment near the Lefkianias river, 170 m, 37°39'N, 21°44'E, 02.07.2011, *Kit Tan*, *G. Vold*, *K. Giannopoulos* & *G. Vendras* 31011 (herb. Kit); coastal rocks at Merkouri vineyard near Korakohori, 3 m, 37°40'N, 21°18'E, 04.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31088 (herb. Kit).

No other published data available for eparchia and nomos.

67. *Allium callimischon* Link

Gr Nomos Ilias, Eparchia Olimbias: Lepreo archaeological site, 420 m, 37°26'N, 21°43'E, 24.09.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31118 (herb. Kit).

New for Eparchia Olimbias.

68. *Allium guttatum* subsp. *tenorei* (Parl.) Soldano

Gr Nomos & Eparchia Ilias: ca. 2 km NE of Kamena, small allotment near the Lefkianias river, 170 m, 37°39'N, 21°44'E, 02.07.2011, *Kit Tan*, *G. Vold*, *K. Giannopoulos* & *G. Vendras* 31017 (herb. Kit); coastal rocks at Merkouri vineyard near Korakohori, 3 m, 37°40'N, 21°18'E, 04.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31079 (herb. Kit).

No other published data available for eparchia and nomos.

69. *Allium paniculatum* L.

Gr Nomos Ilias, Eparchia Olimbias: abandoned quarry of A. & G. Billionis, Mt Lapithas, 345 m, 37°31'N, 21°39'E, 03.07.2011, *Kit Tan*, *G. Vold* & *K. Giannopoulos* 31078 (herb. Kit, conf. D. Tzanoudakis, August 2011).

No other published data available for eparchia and nomos.

Reports 70–72

Valentina Goranova, Kiril Vassilev & Hristo Pedashenko

Department of Plant and Fungal Diversity and Resources,
Institute of Biodiversity and Ecosystem Research,
Bulgarian Academy of Sciences, Acad. Georgi Bonchev St.,
bl. 23, 1113 Sofia, Bulgaria, e-mail: goranova@bio.bas.bg

Asteraceae

70. *Scorzonera mollis* M. Bieb.

Bu Valley of River Mesta: in open, eroded places at the village of Beslen, Hadzhidimovo Municipality, Gotse Delchev district, GL-49, 04.05.2009, coll. V. Goranova & K. Vassilev (SOM 167575).

This is the first record for the species from this floristic region.

Brassicaceae

71. *Cardamine matthioli* Moretti

Bu Valley of River Mesta: along the stream in a meadow at the road between Gotse Delchev town and Garmen village, Gotse Delchev district, GM-30, 02.10.2010, coll. V. Goranova & K. Vassilev (SOM 167574).

First record for this floristic region.

Caryophyllaceae

72. *Spergula pentandra* L.

Bu Valley of River Mesta: in sandy grassy places on hills at the village of Beslen, Hadzhidimovo Municipality, Gotse Delchev district, GL-49, 12.06.2009, coll. V. Goranova & K. Vassilev (SOM 167571); on slopes above Marchevo village, Gotse Delchev district, GM-31, 13.06.2009, coll. V. Goranova & K. Vassilev.

This species is widespread in Bulgaria, but this is the first record from this floristic region.

Reports 73–93

Antoaneta Petrova¹, Nadya Getova², Neli Grozeva³ & Diana Venkova¹

¹ Botanical Garden, Bulgarian Academy of Sciences, P.O. Box 664, 1000 Sofia, e-mail: petrovabotgar1@abv.bg

² Sinite Kamani Nature Park, 1, A. Stamboliiski square, Pech Komplex, 8800 Sliven, e-mail: dppsinite_kamani@dag.bg

³ Department of Biology and Aquaculture, Agrarian Faculty, Thracian University, 6000 Stara Zagora, e-mail: grozeva@uni-sz.bg

The following reports, with two exceptions, are from the Sinite Kamani Nature Park near Sliven town. With

its area of 11380.8 ha, altitudinal range of 300–1189 m and diverse geomorphology and petrography, this territory has very rich biodiversity, with more than 1000 species of vascular plants (e.g. Grozeva & al. 2004; Petrova & al. 2009). The discovery of more than 15 new species for the floristic subregion of the Balkan Range (*Eastern*) and more than 40 species new for the territory of the Nature Park (not listed here) during 2011 (11 days of field work were concentrated on the representatives of *Orchidaceae*) is an important argument in support of continuing the floristic studies in the area.

If not otherwise stated, the species are new for the Balkan Range (*Eastern*).

Apiaceae

73. *Anthriscus nemorosa* (M. Bieb.) Spreng.

Bu Balkan Range (*Eastern*): beach forests in the Ablanovo area, Sinite Kamani Nature Park, MH-42, 18.05.2011, coll. A. Petrova & N. Getova (SOM 167798).

Asteraceae

74. *Arctium nemorosum* Lej.

Bu Balkan Range (*Eastern*): beach forests near Karandila, Sinite Kamani Nature Park, MH-42, 17.07.2011, coll. A. Petrova (SOM 167748).

An European floristic element, possibly overlooked in some mountainous regions of Bulgaria and so far reported only from the Balkan Range (*Central*), Rila Mts (Peev 1992; Delipavlov 2003) and Mt Belasitsa (Petrova & al. 2010).

75. *Cirsium oleraceum* (L.) Scop. (Fig. 9)

Bu Balkan Range (*Eastern*): along river Novoselska, Dolapite locality, Sinite Kamani Nature Park, MH-42, 18 & 31.07.2011, coll. A. Petrova, D. Venkova & N. Getova (SOM 167753) and N. Getova (SOM 167906).

According to Peev (1992), this species is known for Bulgaria from the Balkan Range (*Central* & *Western*). It was determined as Rare for the country in the first edition of the national *Red Data Book* (Ganchev 1984) and only the Central Balkan Range was given as its distribution area for Bulgaria. The species was not evaluated for the latest *Red List of Bulgarian vascular plants* (Petrova & Vladimirov 2009). The population observed in the river Novoselska valley was a small one – about 20 individuals occurring between the localities Dolapite and Mochurite, and only five of them with inflorescences. Considering the vegetation changes in this valley in the last decades and the fact that after

discontinuation of grazing shading has increased, it can be assumed that the population of *Cirsium oleracea* has been suppressed, especially at higher elevations.



Fig. 9. *Cirsium oleraceum* (photo N. Getova).

76. *Senecio papposus* (Rchb.) Less.

Bu Balkan Range (*Eastern*): in a mixed deciduous forest between Karandila and Arhangela localities, 21.06.2011 and in beach forests near Karandila, 18.07.2011, Sinite Kamani Nature Park, MH-42, 42°43'13"N, 26°21'44"E, coll. A. Petrova, N. Grozeva & N. Getova (SOM 167794, 167793).

Although Grozeva & al. (2004) listed this species for the flora of Sinite Kamani Nature Park, it was not given for the flora of the Balkan Range (*Eastern*) in Assyov & Petrova (2006). Thus the above-cited specimens confirm it for that floristic region.

Brassicaceae

77. *Camelina sativa* (L.) Crantz

Bu Balkan Range (*Eastern*): on the slopes of Lale Bair Hill near Sotirya village, Sliven district, MH-42, 18.05.2011, coll. A. Petrova (SOM 167863).

New for the Balkan Range floristic region.

Campanulaceae

78. *Asyneuma limonifolium* (L.) Janch.

Bu Balkan Range (*Eastern*): in dry stony grasslands between Karandila and Peschenik localities in the Sinite Kamani Nature Park, MH-42, 18.05.2011, with flowers, coll. N. Getova (SOM 167460).

79. *Campanula moesiaca* Velen.

Bu Balkan Range (*Eastern*): on slopes above Luda Kamchia river, SW of Rakovo village, Sliven district, MH-43, 20.06.2011, coll. A. Petrova (SOM 167451).

A small population of few individuals was observed.

Caryophyllaceae

80. *Cerastium tauricum* Spreng.

Bu Balkan Range (*Eastern*): in a pasture in Karakyutyuk locality, Sinite Kamani Nature Park, MH-42, 42°44'24"N, 26°17'46"E, 19.05.2011, coll. A. Petrova (SOM 167452).

Fabaceae

81. *Ononis adenotricha* Boiss.

Bu Balkan Range (*Eastern*): in a rocky calcareous place above Enyova Bulka locality in the Sinite Kamani Nature Park, MH-42, 42°43'13"N, 26°23'33"E, 21.06.2011, coll. A. Petrova, N. Getova & M. Georgieva (SOM 167455).

82. *Vicia laeta* Ces.

Bu Balkan Range (*Eastern*): in forest glades at the Mollova Korja locality, Sinite Kamani Nature Park, MH-42, 20.05.2011, coll. A. Petrova, N. Getova & D. Venkova; along roads at Gagovets Hill in the Sinite Kamani Nature Park, MH-42, 42°41'45"N, 26°19'11"E, 20.05.2011, coll. A.S. Petrova, N. Getova & D. Venkova (SOM 167797, 167461).

New for the Balkan Range floristic region.

Monotropaceae

83. *Monotropa hypopitys* L.

Bu Balkan Range (*Eastern*): in a beech forest at Haramiyata locality, Sinite Kamani Nature Park, MH-42, 42°44'35"N, 26°21'33"E, 18.07.2011, coll. N. Getova (SOM 167801).

Rosaceae

84. *Mespilus germanica* L.

Bu Balkan Range (*Eastern*): in a deciduous forest on the slopes of the river Novoselska valley, between Dolapite and Sini Vir localities, Sinite Kamani Nature Park, MH-42, 18.07.2011, coll. A. Petrova & al. (SOM 167780).

A single young fruiting individual was observed along the tourist trail. The main distribution area of the species in Bulgaria is Mt Strandzha, extending northwards along the Black Sea Coast. Petrova (2008) reported it for the Balkan Range (*Eastern*), near Golitsa village, where a population was observed. Most likely, the observed individual results from non-intentional introduction by man (from an eaten fruit) but environmental conditions on the south-facing slopes are appropriate for the species and it merits looking for it in the future.

Saxifragaceae**85. *Saxifraga marginata* Sternb.**

Bu Balkan Range (*Eastern*): Peschenik locality, Sinite Kamani Nature Park, on limestone rocks, MH-42, 42°43'27"N, 26°23'12"E, 18.05.2011, with flowers, coll. N. Getova (SOM 167460).

An orophyte, distributed in the mountains of SE Europe, for Bulgaria reported only for the Forebalkan (*Western*) and Balkan Range (*Central*). Evaluated as Vulnerable for the country (Peev & Tsoneva 2009).

Scrophulariaceae**86. *Antirrhinum majus* L.**

Bu Balkan Range (*Eastern*): along roads at Gagovets Hill, Sinite Kamani Nature Park, MH-42, 22.06.2011, coll. A. Petrova, N. Getova & D. Venkova (SOM 167450).

The species is widely used as an ornamental plant and is naturalized in some appropriate habitats (stone slopes, pavement, ancient fortress walls, etc.) or found as a casual.

Cyperaceae**87. *Carex paniculata* L.**

Bu Balkan Range (*Eastern*): in wet places along the lake at Karandila locality, Sinite Kamani Nature Park, MH-42, 42°43'04"N, 26°22'30"E, 17.07.2011, coll. A. Petrova, N. Getova & D. Venkova (SOM 167750).

Iridaceae**88. *Crocus pallasii* Goldb.**

Bu Balkan Range (*Eastern*): in a pasture in Karakyutyuk locality, Sinite Kamani Nature Park, MH-42, 31.10.2011, coll. N. Getova & A. Petrova (SOM 167964). Observed also in Mollova Koria locality.

New for the Balkan Range floristic region.

Orchidaceae**89. *Epipactis exilis* P. Delforge**

Bu Balkan Range (*Eastern*): in beach forests near Karandila and Mochurite localities, Sinite Kamani Nature Park, MH-42, 42°43'33"N, 26°21'55"E & 42°44'18"N, 26°20'24"E, 17.07.2011, coll. A. Petrova & al. (SOM 167758, 167757).

90. *Epipactis pontica* Taubenheim

Bu Balkan Range (*Eastern*): in beach forests near Haramiyata and along the road to Daula locality, Sinite Kamani Nature Park, MH-42, 42°44'35"N,

26°21'33"E & 42°45'01"N, 26°19'30"E, 17.07.2011, coll. A. Petrova & al. (SOM 167761, 167762, 167908).

Both *Epipactis* species have been reported recently for Bulgaria (Petrova & Venkova 2006, 2008) and evaluated as Endangered in the country. This evaluation is based on a limited area of occupancy, a very fragmented distribution, strong decline of the beech forests in Bulgaria, and fluctuations of the number of mature individuals. The observed parts of the populations were not very numerous too (from 10 to 50 individuals) but the area of the well-developed beech forests in the Nature Park is significant and possibly the populations are more numerous.

Poaceae**91. *Aegilops geniculata* Roth**

Bu Balkan Range (*Eastern*): along roads at Gagovets Hill, Sinite Kamani Nature Park, MH-42, 22.06.2011, obs. A. Petrova, N. Getova & D. Venkova.

92. *Molinia coerulea* (L.) Moench

Bu Balkan Range (*Eastern*): in wet places along the lake at Karandila locality, Sinite Kamani Nature Park, MH-42, 42°43'04"N, 26°22'30"E, 17.07.2011, coll. A. Petrova, N. Getova & D. Venkova (SOM 167781).

93. *Piptatherum holciforme* (M. Bieb.) Roem. & Schult.

Bu Balkan Range (*Eastern*): along roads at Gagovets Hill, Sinite Kamani Nature Park, MH-42, 20.05.2011, coll. A.S. Petrova, N. Getova & D. Venkova (SOM 167457); on the slopes of Lale Bair Hill near Sotirya village, Sliven district, MH-42, 18.05.2011, coll. A. Petrova, N. Grozeva & N. Getova (SOM 167458); observed also along the road below Enyova Bulka, Sinite Kamani Nature Park, MH-42, 19.05.2011, obs. A. Petrova.

New for the Balkan Range floristic region.

Acknowledgements. The financial support under Contract No 24 between Sinite Kamani Nature Park and the Botanical Garden, BAS is gratefully acknowledged. Sincere thanks are extended to *Dipl.-Ing.* Ivan Ivanov, director of the Nature Park for his kind support and to D. Dohchev and M. Georgieva for guiding us during some of the field work.

Reports 94–107

Kostas Polymenakos¹ & Kit Tan²

¹ Dodekanisou 15, Vrilisia, 152 35, Attikis, Greece

² Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bio.ku.dk (author for correspondence)

Continuing a series of new plant records based on further floristic investigations in Greece. The floristic regions adopted follow those circumscribed in *Flora Hellenica* (Strid & Tan 1997).

Aspleniaceae

94. *Asplenium ruta-muraria* L.

Gr Nomos Evvias, Eparchia Chalkidos: Mt Dirfi, on vertical rock, 1320 m, 38°37'N, 23°51'E, 07.08.2011, K. Polymenakos obs. (photo, conf. Kit Tan, August 2011).

New for Mt Dirfi and the island of Evvia. Together with *Asplenium trichomanes*, *Asperula suffruticosa*, *Inula oxylepis* (*Inula candida* subsp. *limonella*), *Sideritis euboea* and *Campanula constantini*.

Apiaceae

95. *Helosciadium nodiflorum* (L.) W.D.J. Koch

Gr Nomos & Eparchia Attikis: Mt Parnitha, 1075 m, 38°10'N, 23°44'E, 17.07.2011, K. Polymenakos obs. (photo, conf. Kit Tan, August 2011).

New for Mt Parnitha. In stream shaded by *Abies* forest with *Rubus canescens* and *Epipactis helleborine*.

Asteraceae

96. *Centaurea spruneri* Boiss. & Heldr. subsp. *spruneri*

Gr Nomos Evvias, Eparchia Chalkidos: outside Katheni, along road from Chalkida to Steni, 185 m, 38°33'N, 23°47'E, 07.08.2011, K. Polymenakos obs. (photo, det. Kit Tan, August 2011).

New for Evvia. At least 10 specimens observed.

Chenopodiaceae

97. *Salsola soda* L.

Gr Nomos Kikladon, Eparchia Sirou: island of Mikonos, amongst rubbish at Ftelia beach, sea level, 37°27'N, 25°23'E, 23.08.2011, K. Polymenakos obs. (photo, conf. Kit Tan, November 2011).

Although a widespread species in Greece, it remains local in the Aegean area. In the Kiklades, so far recorded from Amorgos and Folegandros. Together with *Limonium sinuatum*, *Otanthus maritimus*, *Euphorbia paralias* and *Pancratium maritimum*.

Fabaceae

98. *Genista millii* Boiss. (Fig. 10)

Gr Nomos & Eparchia Korinthias: southern slopes of Mt Killini, 1040 m, 37°51'N, 22°22'E, 22.05.2011, K. Polymenakos obs. (photo, conf. Kit Tan, August 2011).

New for Mt Killini.



Fig. 10. *Genista millii* (photo K. Polymenakos).

Lamiaceae

99. *Marrubium peregrinum* L. (Fig. 11)

Gr Nomos & Eparchia Attikis: Mt Parnitha, Katsimidi, 600 m, 38°11'N, 23°47'E, 11.09.2010, K. Polymenakos obs. (photo, conf. Kit Tan, November 2011).

New for Mt Parnitha. In nomos Attikis, only recorded from Eparchia Megaridos (Mt Pateras and the island of Salamis). Approximately 15 plants were observed, together with *Centaurea solstitialis*.

100. *Teucrium montanum* subsp. *helianthemoides* (Adamović) Baden (Fig. 12)

Gr Nomos & Eparchia Attikis: Mt Parnitha, stony ground in *Abies* forest, 1240 m, 38°10'N, 23°43'E, 04.07.2010, K. Polymenakos obs. (photo, conf. Kit Tan, November 2011).



Fig. 11. *Marrubium peregrinum* (photo K. Polymenakos).



Fig. 12. *Teucrium montanum* subsp. *helianthemoides* (photo K. Polymenakos).

Confirming a collection made on Parnitha by Tuntas in July 1911 (specimen in WU-Hal) and never re-collected until now, nearly a hundred years later. It was reported as existing in a small population on Mt Pendeli in Nomos Attikis (see Baliouis & Yannitsaros 2011: 159). On Parnitha, ca. 15 plants were noted, scattered in distribution, together with *Inula verbascifolia*, *Bolanthus graecus*, *Pterocephalus perennis*, *Asperula rigida* and *Silene oligantha*.

Orobanchaceae

101. *Orobanche hederæ* Duby (Fig. 13)

Gr Nomos & Eparchia Attikis: Mt Parnitha, in dry streambed at Katsimidi, 585 m, 38°11'N, 23°47'E, 10.07.2011, K. Polymenakos obs. (photo, conf. Kit Tan, August 2011).

New for Mt Parnitha.



Fig. 13. *Orobanche hederæ* (photo K. Polymenakos).

Thymelaeaceae

102. *Daphne laureola* L. (Fig. 14)

Gr Nomos Fokidos, Eparchia Parnassidos: in *Abies* forest, along road out of Kaloskopi, 1150 m, 38°40'N, 22°19'E, 24.04.2009, K. Polymenakos obs. (photo, conf. Kit Tan, November 2011).

New for Mt Giona. From Sterea Ellas, recorded so far from Timfristos and Akarnanika Ori. Several plants noted, scattered in distribution.



Fig. 14. *Daphne laureola* (photo K. Polymenakos).

Araceae

103. *Biarum tenuifolium* subsp. *abbreviatum* (Schott) K. Richt.

Gr Nomos & Eparchia Attikis: Mt Pendeli, 440 m, 38°03'N, 23°52'E, 20.10.2011, *K. Polymenakos* obs. (photo, conf. Kit Tan, November 2011).

New for Mt Pendeli, recorded twice from Mt Parnitha in the same prefecture. More than 20 individuals were observed in flower at Moni Pedelis (the monastery at Palea Pedeli).

Liliaceae s.l.

104. *Allium callimischon* Link subsp. *callimischon*

Gr Nomos & Eparchia Korinthias: north side of Lake Feneos, 880 m, 37°55'N, 22°17'E, 26.09.2009, *K. Polymenakos* obs. (photo, conf. Kit Tan, November 2011); south side of Lake Feneos, 900 m, 37°55'N, 22°16'E, 03.09.2011, *K. Polymenakos* obs. (photo, conf. Kit Tan, November 2011).

New for Nomos Korinthias.

105. *Allium cyrilli* Ten.

Gr Nomos & Eparchia Attikis: Mt Parnitha, 1060 m, 38°09'N, 23°44'E, 11.05.2010, *K. Polymenakos* obs. (photo, det. Kit Tan, August 2011).

New for Mt Parnitha. A single individual at the edge of the Casino car-park, in burnt *Abies* forest with *Scutellaria rupestris* and *Campanula spatulata*.

Orchidaceae

106. *Epipactis palustris* (L.) Crantz

Gr Nomos Evvias, Eparchia Chalkidos: Mt Dirfi, main road from Steni to Stroponos, 900 m, 38°36'N, 23°51'E, 02.07.2011, *K. Polymenakos* obs. (photo).

New for Mt Dirfi and the island of Evvia. More than 50 plants were found on a wet slope together with *Dactylorhiza saccifera*.

107. *Himantoglossum caprinum* (M. Bieb.) Spreng.

Gr Nomos Evvias, Eparchia Chalkidos: Mt Dirfi, from the spring at Liri (1080 m) to 1300 m on way to summit, 38°37'N, 23°51'E, 02.07.2011, *K. Polymenakos* obs. (photo).

New for Mt Dirfi and the island of Evvia. At least 10 individuals were counted.

Cupressaceae

108. *Juniperus deltoides* R.P. Adams

Bu Rhodopi Mts (*Western*): on the territory of the Devin State Forestry Farm, in Arsaz Tepe locality, in shrubs, along with *Juniperus communis*, on a rocky, south-exposed slope with 40° inclination, on rhyolite, 1430 m, KG-82, 41°47'33.4"N, 24°23'48.0"E, 08.09.2006, coll. A. Tashev (SOM 164044).

So far in Bulgaria this species (sub *J. oxycedrus* L.) has been reported only from altitudes up to 1100 m a.s.l. (Delipavlov 2003: 37; Assyov & Petrova 2006: 224), while the present location was at a much higher altitude.

Juniperus deltoides was described recently on the basis of chorological, morphological, biochemical, and phylogenetic studies of the genus (Adams 2004, 2011). Junipers on the Balkan Peninsula, the Crimea, Caucasus, Turkey, Italy and Palestine, determined earlier as *J. oxycedrus*, have been referred to the new species *J. deltoides* (Adams 2011). A sample from Bulgaria ["Bulgaria, s Varna, 7 Dec 1923, B. Gilliat-Smith 373 (K)"] was listed by the author among the paratypes (Adams 2004). *Juniperus deltoides* differs from *J. oxycedrus* in the linear-triangular leaves (not narrow lanceolate as in the typical *J. oxycedrus*) and seed cones with protruding leaf scales (in *J. oxycedrus* they are imperceptible or only implicit). The true *J. oxycedrus* grows in Spain, France and Morocco (Adams 2011).

Betulaceae

109. *Ostrya carpinifolia* Scop.

Bu Balkan Range (*Eastern*): in the Sinite Kamani Nature Park, Mecha Polyana locality, along a forest trail, bordering on *Fagus sylvatica* subsp. *moesiaca*, on a south-southwest exposed slope with 10° inclination, at 1018 m, MH-43, 42°44'23.0"N, 26°22'37.9"E, 06.08.2011, coll. A. Tashev (SOM 167803, 167804).

This species occurs often on the territory of Sinite Kamani Nature Park. An interesting forest plant community was described, dominated by *Ostrya carpinifolia* on the first floor, along with *Acer campestre*, *Corylus colurna*, *Fagus sylvatica* subsp. *moesiaca*, and *Quercus cerris*, aged averagely about 50 years; with undergrowth of *Fraxinus excelsior*, *Fagus sylvatica* subsp. *moesiaca*, *Ostrya carpinifolia*,

Reports 108–113**Alexander Tashev**

Department of Dendrology, Faculty of Forestry, University of Forestry, 10 Kliment Ohridski Blvd., Sofia 1756, Bulgaria, e-mail: atashev@mail.bg

and *Acer hyrcanum*. The shrubs were represented by *Sambucus nigra*, *Crataegus monogyna* and *Ribes uva-crispa*. In the grassy floor occurred *Lamiaeum galeobdolon*, *Cardamine bulbifera*, *Anthriscus sylvestris*, *Poa nemoralis*, *Viola hirta*, *Galium aparine*, *Mycelis muralis*, *Geum urbanum*, *Alliaria petiolata*, *Primula veris*, *Potentilla micrantha*, *Aremonia agrimonoides*, and representatives of *Bryophyta*. A new species for this floristic subregion (Terziyski 2003: 64; Assyov & Petrova 2006: 282).

Monotropaceae

110. *Monotropa hypopitys* L.

Bu Balkan Range (*Eastern*): Sinite Kamani Nature Park, in the lands around Sliven town, on an eastern slope with 15° inclination, 655 m, MH-43, 42°43'16.7"N, 26°17'44.3"E, 07.09.2011, coll. A. Tashev (SOM 167805).

The species was found in a 40-year old forest community of *Quercus dalechampii*, *Fagus sylvatica*, *Quercus frainetto*, and *Corylus colurna* on the first floor, with undergrowth of *Ostrya carpinifolia*, *Fraxinus ornus*, *Carpinus betulus*, *C. orientalis*, *Sorbus torminalis*, and *Acer hyrcanum*. The shrubs were represented only by *Corylus avellana*. *Luzula luzuloides* and *Poa nemoralis* dominated among the grasses, with lesser participation of *Brachypodium sylvaticum*, *Dactylis glomerata*, *Festuca heterophylla*, *Galium pseudoaristatum*, *Veronica officinalis*, *Hieracium sabaudum*, *Hypericum montbretii*, *Cruciata glabra*, *Campanula persicifolia*, and representatives of *Bryophyta*. A new species for this floristic subregion (Delipavlov 2003: 148; Assyov & Petrova 2006: 262).

Rosaceae

111. *Mespilus germanica* L.

Bu Sofia Region: Mt Lyulin, in a forest of *Quercus dalechampii*, *Carpinus betulus* and *Fagus sylvatica*, along with cultured *Pinus nigra*, on an eastern slope with 3° inclination, 940 m, FN-72, 42°39'19.2"N, 23°12'38.6"E, 28.07.2011, coll. A. Tashev (SOM 167959).

This is a new locality for the species in Bulgaria, so far known from the Black Sea Coast (*Southern*) and Mt Strandzha (Popova 2003: 196; Assyov & Petrova 2006: 256) and Eastern Balkan Range (Petrova 2008). Not a native occurrence, most likely the specimen originated from a seed thrown by humans or brought by birds from the settlements nearby.

Saxifragaceae

112. *Ribes nigrum* L.

Bu Rhodopi Mts (*Western*): on the territory of the Devin State Forestry Farm, in the region of Devin town, in the Struilitsa locality, on the left-side bank of river Devinska, among rocks, along with *Frangula alnus*, *Rubus idaeus*, *Filipendula ulmaria*, and *Urtica dioica*, on a south-southwestern slope with 30° inclination, 782 m, KG-82, 41°44'54.4"N, 24°21'15.6"E, 21.08.2011, coll. A. Tashev (SOM 167991).

A new locality for this species in the Western Rhodopi Mts. Already known from another locality in Western Rhodopi Mts (Kuzmanov 1970) and Central Rhodopi Mts (Vladimirov & al. 2006).

Liliaceae

113. *Lilium jankae* A. Kern.

Bu Balkan Range (*Eastern*): Sinite Kamani Nature Park, in the eastern, newly-attached part of the Park, in the lands of Kaloyanvo village, between Dolna Kalinka and Koskosha localities, on an eastern slope with 15° inclination, 762 m, MH-53, 42°43'14.9"N; 26°27'12.4"E, 08.09.2011, coll. A. Tashev (SOM 167802).

This species was found in a 70-year old forest community of *Quercus cerris* and *Q. frainetto* on the first floor and with undergrowth of *Carpinus betulus*, *C. orientalis*, *Sorbus torminalis*, *Acer campestre*, *Prunus avium*, and *P. cerasifera*. The shrubs were represented by *Rosa canina*, *Cornus mas*, *Crataegus monogyna*, *Rubus idaeus*, *R. canescens*, and *R. caesius*. The grassy floor was dominated by *Poa nemoralis*, *Festuca heterophylla* and *Dactylis glomerata*. Less abundant were *Poa pratensis*, *Brachypodium sylvaticum*, *Festuca gigantea*, *Galium pseudoaristatum*, *Veronica officinalis*, *V. chamaedrys*, *Lapsana communis*, *Mycelis muralis*, *Potentilla micrantha*, *Hypericum perforatum*, *Allium flavum*, *Primula veris*, *Polygonum* sp., *Clinopodium vulgare*, *Viola hirta*, *Prunella vulgaris*, *Glechoma hirsuta*, *Lychnis coronaria*, *Euphorbia amygdaloides*, *Verbascum* sp. etc.

This rare for the Bulgarian flora and legislatively protected species has not been found so far in this floristic subregion. It was not found, too, under a forest canopy, nor at such a low altitude: the one reported so far was from 1500 m up to 2900 m a.s.l. (Popova 2003: 441; Assyov & Petrova 2006: 238).

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Kiril Vassilev

Department of Plant and Fungal Diversity and Resources, Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: vassilev@bio.bas.bg, kiril5914@abv.bg

Caryophyllaceae

114. *Silene velcevii* Jordanov & Panov

Bu Balkan Range (*Western*): on rocks above Belidie Han challet, 12.06.2008, FN-75, coll. *K. Vassilev* & *R. Vassilev* (SOM 166628).

This taxon is a Bulgarian endemic (Petrova 2006), regarded as Critically Endangered species, according to Assyov & Denchev (2009). This is the second floristic region in the country where this species is recorded.

Rosaceae

115. *Prunus mahaleb* L.

Bu Vitosha Region: Mt Vitosha, Krapets locality, 25.05.1997, coll. *P. Gelev* & *S. Savev* (SOM 154065).

A new species for this floristic region.

116. *Rosa pimpinellifolia* L.

Bu Sofia Region: in rocky places above Ponor village, FN-75, 30.07.2009, coll. *K. Vassilev* (SOM 166453); on dry calcareous slopes in a broad-leaf woodland above Belidie Han village, Sofia district, FN-75, 29.07.1983, coll. *I. Panov* (SOM 147583).

This is a new species for this floristic region. It participates in xerothermic grassland communities of the class *Festuco-Brometea* Braun-Blanq. & Tüxen ex Soó 1947 and alliances *Festucion valesiaca* Klika 1931 and *Saturejion montanae* Horvat 1962 em. Horvat, Glavač & Ellenberg 1974. According to Assyov & Petrova (2006), it is known from the Balkan Range, Vitosha Region, West Frontier Mts, Mt Belasitsa, Mt Slavyanka, Pirin Mts, and Rhodopi Mts.

117. *Sorbus graeca* (Spach) Kotschy

Bu Znepole Region: in dry grasslands between Ponor and Bezden villages, FN-75, 29.07.2009, coll. *K. Vassilev* (SOM 166592).

This species has a limited distribution in Bulgaria and is known only from five floristic regions (Assyov & Petrova 2006). A new species for Znepole Region.

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Kiril Vassilev & Hristo Pedashenko

Department of Plant and Fungal Diversity and Resources, Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: vassilev@bio.bas.bg, kiril5914@abv.bg

Poaceae

118. *Aegilops neglecta* Bertol.

Bu Vitosha Region: Mt Vitosha, in grasslands at about 650 m, on andezite soils, 18.06.1955, coll. *N. Vihodcevsy* (SOM 124961).

— West Frontier Mts: Mt Maleshevska, on peak Palatski, FN-80, 19.06.2009, coll. *V. Vutov* & *D. Dimitrov* (SOM 165076).

— Pirin Mts (*Southern*): in sandy grassland communities above Melnik town, FM-90, 05.06.2008, coll. *K. Vassilev* & *H. Pedashenko* (SOM 166451).

So far unknown from these floristic regions.

119. *Agropyron cristatum* (L.) Gaertn.

Bu Mt Sredna Gora (*Western*): Mt Lozenska, in the calcareous grasslands around peak Lalina Mogila, GN-01, 05.06.2006, coll. *H. Pedashenko* & *K. Vassilev* (SOM 166566).

A new species for this floristic region.

120. *Agrostis canina* L.

Bu Znepole Region: Mt Ruy, participates in calcareous grasslands under peak Ruy, FN-24, 12.07.2009, coll. *K. Vassilev* & *H. Pedashenko* (SOM 166559); in the subalpine pastures of Karvavi Kamak locality above Dolna Melna village, at about 1600–1700 m, FN-22, 21.07.1938, coll. *B. Achtaroff* (SOM 3628).

— West Frontier Mts: Mt Maleshevska, on the ridge close to the Breznitsa frontier post, 15.07.2009, coll. *D. Dimitrov* (SOM 165714).

This is a new species for these floristic regions.

121. *Agrostis gigantea* Roth

Bu Sofia Region: around the lake of Bezden village, Kostinbrod district, FN-74, 20.06.2009, coll. *H. Pedashenko*, *K. Vassilev* & *A. Petrova* (SOM 166560).

— Znepole Region: in wet places at the foot of Mt Lyubash, near Lyalintsi village, Pernik district, FN-62, 22.08.2007, coll. *A. Petrova* (SOM 163698).

— Vitosha Region: in the grasslands of Mt Vitosha,

near Vladaya village, FN-72, coll. A. Drenovsky & B. Acharoff (SOM 3523); near Vladaya, FN-72, 15.08.1903, coll. J. Mrkvicka (SOM 3520).

- Mt Sredna Gora (*Western*): Mt Lozenska, in the wet grasslands near Dolni Lozen village, Sofia district, GN-01, 03.08.1977, coll. N. Vihodcevsky (SOM 136613).

A new species for these floristic regions. So far it has been known from Northeast Bulgaria and the Thracian Lowland (Assyov & Petrova 2006).

122. *Festuca oviniformis* Vetter

Bu Znepole Region: Mt Zemenska, on calcareous terrains around peak Glamen, FN-40, 09.06.2008, coll. K. Vassilev & H. Pedashenko (SOM 166619).

- Pirin Mts (*Northern*): in the grasslands of Banski Suhodol, 23.07.1957, FM-92, coll. V. Velcev, S. Petrov & S. Ganchev (SOM 104578).

This species is a Balkan endemic (Petrova & Vladimirov 2010) and has a limited distribution in Bulgaria. According to Assyov & Petrova (2006), *Festuca oviniformis* is distributed only in three floristic regions in the country: Balkan Range (*Eastern*), Valley of River Struma (*Southern*) and Rhodopi Mts (*Eastern*).

123. *Festuca panciana* (Hack.) K. Richt.

Bu West Frontier Mts: Mt Vlahina, on peak Podnitsa, 15.07.1981, coll. S. Kožuharov & A. Petrova (SOM 88068).

- Pirin Mts (*Northern*): around peak Vihren, 10.08.2010, FM-92, coll. H. Pedashenko, D. Sopotlieva & K. Vassilev (SOM 166467).
- Rhodopi Mts (*Central*): Mt Katranitsa, above Gyovren village, on a steep calcareous slope above the Trigrag Gorge, 01.10.2008, KG-81, coll. D. Dimitrov (SOM 164848).

A new species for these floristic regions. It has been known from the Balkan Range (*Western* & *Central*) and Pirin Mts (*Southern*) (Assyov & Petrova 2006).

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Vladimir Vladimirov

Department of Plant and Fungal Diversity and Resources, Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: vdvlad@bio.bas.bg

Asteraceae

124. *Ambrosia artemisiifolia* L.

Bu Black Sea Coast (*Southern*): Burgas town, Central Railway Station, ca. 5 m, 42.49006°N, 27.46732°E, 14.07.2011, a few specimens noticed, coll. V. Vladimirov (SOM 168115).

A new species for this floristic subregion. It rapidly spreads across the country, but is more common in North Bulgaria. Already recorded in Black Sea Coast (*Northern*), Northeast Bulgaria, Danubian Plain, Forebalkan, Sofia Region, Znepole Region, Valley of River Stuma, and Rila Mts (Dimitrov & Tzonev 2002; Vladimirov 2003, 2006, 2007, Vladimirov & Petrova 2009).

125. *Aster squamatus* (Spreng.) Hieron.

Bu Thracian Lowland: in a damp place along the road between Harmanli town and Balgarin village, ca. 125 m, 41.94165°N, 25.94002°E, 22.09.2011, a dozen of flowering and fruiting specimens, coll. V. Vladimirov (SOM 168116); in a damp place at a street near the centre of Generalovo village, ca. 40 m, 41.72020°N, 26.27548°E, 24.10.2011, a dozen of fruiting individuals, coll. V. Vladimirov (SOM 168117).

A relatively rare alien species, so far recorded in Black Sea Coast (*Northern*) and Valley of River Struma (Assyov & Petrova 2006).

126. *Erigeron bonariensis* L.

Bu Black Sea Coast (*Southern*): Burgas town, Central Railway Station, ca. 5 m, 42.49006°N, 27.46732°E, 14.07.2011, several dozens of fruiting specimens observed, coll. V. Vladimirov (SOM 168118).

- Tundzha Hilly Country: in the centre of Hlyabovo village, on the pavement, ca. 360 m, 42.06044°N, 26.25449°E, 17.09.2011, a few fruiting specimens, coll. V. Vladimirov (SOM 168119).

A new species for these floristic regions. The species was erroneously reported (sub *Conyza bonariensis*) for Black Sea Coast (*Southern*) being misidentified for *E. sumatrensis* (Dimitrov & Trifonov 2006).

127. *Erigeron sumatrensis* Retz.

Bu Black Sea Coast (*Southern*): Burgas town, Central Railway Station, ca. 5 m, 42.49006°N, 27.46732°E, 14.07.2011, hundreds of flowering individuals, coll. V. Vladimirov (SOM 168120).

- Danubian Plain: Lom town, at the railway station, 43.81886°N, 23.24239°E, 31.10.2011, coll. V. Vladimirov (SOM 168121).

— Balkan Range (*Eastern*): Banya village, along the main road, *ca.* 180 m, 42.77405°N, 27.81584°E, a few dozens of flowering and fruiting individuals, coll. V. Vladimirov (SOM 168122).

A recently reported alien for the Bulgarian flora, so far recorded in Black Sea Coast (*Northern*), Northeast Bulgaria, Forebalkan (*Western*), Sofia Region, Valley of River Struma, West Frontier Mts, Mt Belasitsa, Valley of River Mesta, Pirin Mts (*Northern*), Rila Mts, Thracian Lowland, and Tundzha Hilly Country (Vladimirov 2009; Petrova & al. 2010; Vladimirov & Petrova 2010). The herbarium specimen SOM 162500 reported for the Black Sea Coast (*Southern*) by Dimitrov & Trifonov (2006) as *Conyza bonariensis* should be referred to *E. sumatrensis*.

Chenopodiaceae

128. *Chenopodium pumilio* R. Br.

Bu Black Sea Coast (*Southern*): Nesebar town (the old town), on the street pavement, *ca.* 5–10 m, 42.65726°N, 27.73337°E, 07.09.2011, several dozens of specimens noticed, coll. V. Vladimirov (SOM 168123).

— Tundzha Hilly Country: in the centre of Voden village, on the pavement, *ca.* 260–270 m, 42.07329°N, 26.89722°E, 20.09.2011, several dozens of fruiting specimens noticed, coll. V. Vladimirov (SOM 168124); Elhovo, on the pavement along G.S. Rakovski St., between Kaloyan St. and the town central square, *ca.* 150 m, MG-66, 20.09.2011, several dozens of fruiting individuals, coll. V. Vladimirov (SOM 168125); at a small dam S of Igljika village, *ca.* 320 m, 42.03969°N, 26.78024°E, 20.09.2011, a few specimens noted, obs. V. Vladimirov; Topolovgrad town, on the pavement along the main road from Harmanli to Elhovo, 42.08580°N, 26.33314°E, 25.10.2011, about a dozen of fruiting individuals, coll. V. Vladimirov (SOM 168126).

A recently reported alien for the Bulgarian flora, so far recorded from Northeast Bulgaria (Vladimirov & Petrova 2010), Balkan Range (*Eastern*) and Thracian Lowland (Grozeva 2007).

Moraceae

129. *Broussonetia papyrifera* (L.) Vent.

Bu Black Sea Coast (*Northern*): along the road Varna – Burgas, NW of Bliznatsi village *ca.* 3–4 km before Priseltsi village, *ca.* 150 m, 43.07889°N, 27.85555°E, 07.09.2011, coll. V. Vladimirov (SOM 168127).

A species already recorded in this floristic region (Assyov & Petrova 2006). In the present locality, several dozens of planted, already fruiting, *ca.* 5–6 m high trees were noticed. Various in size groups of younger specimens with a different age and height were formed around each of the planted trees, each group comprising several hundreds of individuals on an area of *ca.* 100–200 m². Most young specimens resulted from vegetative reproduction, however, seedlings may also occur. Some of the young specimens, with a height of *ca.* 1.5–3 m, were fruiting too. The species should be considered naturalised in this locality. A native to East Asia.

Poaceae

130. *Eleusine indica* (L.) Gaertn.

Bu Black Sea Coast (*Southern*): Nesebar town (the old town), on the street pavement, *ca.* 5–10 m, 42.65726°N, 27.73337°E, 07.09.2011, several dozens of specimens noticed, coll. V. Vladimirov (SOM 168128).

New for this floristic region

Acknowledgements. Financial support of the National Science Fund under Contract DO-02-194, project “Biology, ecology and control of the invasive alien species in the Bulgarian flora”, is gratefully acknowledged.

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George Zarkos¹, Vasilis Christodoulou² & Kit Tan³

¹ Kolokotroni 37A, Kiato, 202 00, Korinthias, Greece

² Apellou sidestreet, Kiato, 202 00, Korinthias, Greece

³ Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bio.ku.dk (author for correspondence)

Continuing a series of new plant records based on floristic investigations in the prefecture of Korinthias in north central Peloponnese, including Mt Killini which is *locus classicus* for several Greek mountain species and considered botanically well-explored. New discoveries, however, still emerge.

Asteraceae

131. *Arctium minus* Bernh.

Gr Nomos & Eparchia Korinthias: Mt Killini, below the village of Ano Trikala, 837 m, 37°58'N, 22°28'E, 3.07.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).

Confirming more than 100 year old records from Mt Killini; first collected in the locality by Heldreich (Halácsy 1902: 102) and in October 1906 by Maire & Petitmengin (Maire & Petitmengin 1908: 122). One plant was located beneath *Platanus orientalis* on the banks of a small stream, together with *Cirsium arvense*, *Rhus coriaria* and *Rubus sanctus*. The plant was not in flower when photographed in early July.

132. *Centaurea zuccariniana* DC. (Fig. 15)

Gr Nomos & Eparchia Korinthias: near Lake Stymfalia, 621 m, 37°51'N, 22°26'E, 13 & 26.06.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).

Confirming an old record by Bretzl from the same area (Halácsy 1908: 60). Approximately 10 plants were found on a rocky hill, flowering from June to July near the lake on which dwelt, according to Greek mythology, the man-eating Stymphalian birds later destroyed by Hercules. Other species in the area were *Picnomon acarna*, *Scolymus hispanicus*, *Linum strictum*, *Onopordum tauricum*, *Sideritis purpurea*, *Sideritis curvidens*, *Ballota acetabulosa* and *Bupleurum* spp.



Fig. 15. *Centaurea zuccariniana* (photo G. Zarkos).

133. *Senecio macedonicus* Griseb.

Gr Nomos & Eparchia Korinthias: Mt Killini, on both sides of the Flabouritsa gorge, rocky footpath from village Mana to Markou Laka, 1147 m, 37°57'N, 22°28'E, 11.07.2010, G. Zarkos & V. Christodoulou obs. (photos, det. Kit Tan, October 2011).

First confirmation of more than 100 year old records from Mt Killini; collected in the same locality by Heldreich on 28 June 1887, and by Maire & Petitmengin on 7 August 1906.

134. *Solidago virgaurea* L. (Fig. 16)

Gr Nomos & Eparchia Korinthias: Mt Killini, Flabouritsa gorge, rocky footpath from village Mana to Markou Laka, 1231 m, 37°57'N, 22°27'E, 01 & 11.07.2010, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).

New for Mt Killini and Nomos Korinthias. This appears to be the second record from the Peloponnese, the first being in 1948 from Mt Chelmos (Nomos Achaïas) by C. Goulimis, the well-known lawyer and amateur botanist who travelled and collected extensively in Greece. Only three plants were found in *Abies cephalonica*-*Pinus nigra* forest, on the northern slopes of the mountain together



Fig. 16. *Solidago virgaurea* (photo V. Christodolou).

with *Fraxinus ornus*, *Lilium chalconicum*, *Dactylorhiza saccifera*, *Neotinea tridentata* (*Orchis tridentata*), *Neotinea commutata* (*Orchis tridentata* subsp. *commutata*), *Ophrys delphinensis*, *Sambucus nigra* and *Pteridium aquilinum*. Flowering mid-July to early August.

Brassicaceae

135. *Alyssoides utriculata* (L.) Medik.

Gr Nomos & Eparchia Korinthias: Mt. Oligirtos, path from village of Lafka to Skipiza (peak), 1304 m, 37°48'N, 22°22'E, 21.05.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, November 2011).

New for Mt Oligirtos and apparently the second record for the Peloponnese. Three plants were found on the vertical cliffs on the north side, in openings of *Abies cephalonica* forest.

Caryophyllaceae

136. *Dianthus monadelphus* subsp. *pallens* (Sm.) Greuter & Burdet (Fig. 17)

Gr Nomos & Eparchia Korinthias: Mt Killini, Ano Trikala to Ag. Varvara, on the sunny side of Flabouritsa gorge, 794 m, 37°58'N, 22°28'E, 03.07.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).

Confirming an old record from Mt Killini, “ad radices m. Kyllene Achaiae, prope Zougra”, 22 July 1851, *Orphanides* 174 (C!). Approximately 10 plants were found flowering in late June and July on both sides of the road. Other species in the vicinity were *Quercus coccifera*, *Anacamptis* (*Orchis*) *coriophora* subsp. *fragrans*, *Blackstonia perfoliata*, *Scutellaria rupestris* subsp. *parnassica*, *Ptilostemon stellatus*, *Rhus coriaria*, *Carthamus lanatus* and *Genista acanthoclada*. The petal limb of this species is creamy-white on the upper surface and usually subentire (Fig. 17a, b). Figure 17c

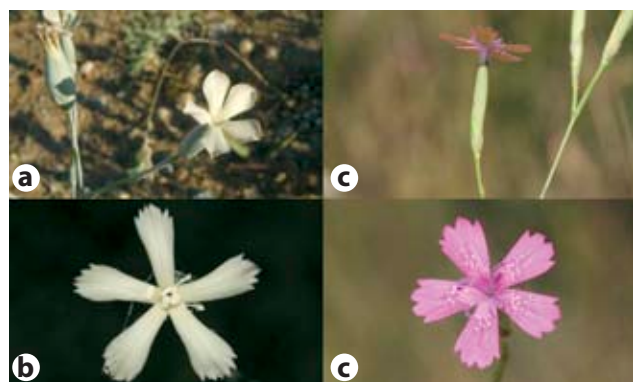


Fig. 17. *Dianthus monadelphus* subsp. *pallens* (photo V. Christodoulou).

from Stymfalia may represent a hybrid between *D. monadelphus* and *D. viscidus* which also occur in the same area. The purplish-pink petal limb spotted white above and greenish-yellow beneath, and the conspicuously dentate margin are characteristic of the latter species.

137. *Silene graeca* Boiss. & Spruner

Gr Nomos & Eparchia Korinthias: near Lake Stymfalia, 626 m, 37°52'N, 22°27'E, 15.05.2009 & 21.05.2011, G. Zarkos & Christodoulou obs. (photos, det. Kit Tan, November 2011).

New for Nomos Korinthias. We found numerous plants on the vertical cliffs just outside Stymfalia village on the road to Oligirtos, growing together with *Micromeria juliana* and *Velezia rigida*. The vesperine flowers meant that from dusk to early morning they form a conspicuous white carpet, but during the day they are not so visible in their surroundings. This camouflage may have accounted for the lack of observation of this species in the area.

Dipsacaceae

138. *Scabiosa crenata* Cyr. subsp. *crenata* (Fig. 18)

Gr Nomos & Eparchia Korinthias: Mt Killini, Flabouritsa gorge, rocky footpath from village Mana to Markou Laka, 1147 m, 37°57'N, 22°28'E, several dates of observation (10 & 18.07.2009, 11.07.2010), G. Zarkos & V. Christodoulou obs. (photos, det. Kit Tan, October 2011).

New for Mt Killini and Nomos Korinthias although well documented from neighbouring prefecture of Achaia. On shaded limestone rock with *Bupleurum fruticosum*, *Amelanchier parviflora* subsp. *chelmea*, *Laserpitium siler* subsp. *garganicum*, *Epilobium angustifolium*, *Campanula asperuloides* and *Sambucus nigra*.



Fig. 18. *Scabiosa crenata* subsp. *crenata* (photo G. Zarkos).

Fabaceae**139. *Vicia laeta* Ces.**

Gr Nomos & Eparchia Korinthias: Mougosto forest, near the road from Kesari to Throfarei, 842m, 37°59'N, 22°35'E, 01.05.2009 & 26.04.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).

New for Nomos Korinthias. Approximately 100 plants were noted flowering in May on the slopes of the small gorge at the edge of Mougosto forest together with *Quercus coccifera*, *Q. frainetto*, *Q. pubescens*, *Astragalus drupaceus*, *Pisum sativum* subsp. *biflorum*, *Asperugo procumbens*, *Verbascum daenzeri*, *Centaurea cyanus*, *Crepis rubra* and *Dactylorhiza romana*. This widely distributed species is very variable in shape and degree of leaflet incision.

Rosaceae**140. *Filipendula vulgaris* Moench (Fig. 19)**

Gr Nomos & Eparchia Korinthias: Mt Killini, the plateau of Ziria, from Trikala to the Ski Centre, 1511 m, 37°57'N, 22°25'E, 07.07.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).



Fig. 19. *Filipendula vulgaris* (photo G. Zarkos).

New for Mt Killini and Nomos Korinthias. The only other record in the Peloponnese is from Nomos Arkadias, Eparchia Gortinias, based on an early collection by Orphanides (Halácsy 1900: 501). There were ca. 30 plants on the plateau, flowering from late June to mid-July. Other species noted on this flat area with low hills were *Astragalus thracicus* subsp. *cyl-leneus*, *Cirsium hypopsilum*, *Juniperus oxycedrus*, *Morina persica*, *Eryngium amethystinum* and *Ononis spinosa*.

Verbenaceae**141. *Lippia nodiflora* (L.) Michx. (Fig. 20)**

Gr Nomos & Eparchia Korinthias: W of Lake Stymfalia, 606 m, 37°51'N, 22°26'E, 13.06.2011, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, October 2011).



Fig. 20. *Lippia nodiflora* (photo V. Christodoulou).

New for Nomos Korinthias. This is the first report from inland water, all the other records from the Peloponnese are coastal. Flowering in June, in wet areas together with *Rorippa sylvestris*, *Nasturtium officinale*, *Verbena officinalis*, *Ranunculus trichophyllus* and *Oenanthe* spp. The lake margin and nearby pastures are submerged in winter but dry out in the summer.

Liliaceae s.l.**142. *Allium callimischon* Link subsp. *callimischon***

Gr Nomos & Eparchia Korinthias: near village of Kesari, 800 m, 37°55'N, 22°32'E, 10.10.2010, G. Zarkos & V. Christodoulou obs. (photos, conf. Kit Tan, after December 2011).

New for Nomos Korinthias.

References

- Adams, R.P. 2004. *Juniperus deltoides*, a new species, and nomenclatural notes on *Juniperus polycarpus* and *J. turcomanica* (Cupressaceae). – *Phytologia*, **86**(2): 49-53.
- Adams, R.P. 2011. *Junipers of the World: The genus Juniperus*. Trafford Publishing Co., Bloomington.
- Aellen, P. 1967. *Amaranthus*. – In: Davis, P.H. (ed.), *Flora of Turkey and the East Aegean Islands*. Vol. 2, pp. 340-344. Univ. Press, Edinburgh.
- Assyov, B. & Denchev, C.M. 2009. *Silene velcevii* Jordanov & Panov. – In: Petrova, A. & Vladimirov, V. (eds), *Red List of Bulgarian vascular plants*. – *Phytol. Balcan.*, **15**(1): 71.
- Assyov, B. & Petrova, A. (eds). 2006. *Conspectus of the Bulgarian Vascular Flora. Distribution Maps and Floristic Elements*. Ed. 3. BBF, Sofia.
- Balioussis, E. & Yannitsaros, A. 2011. Vascular plant diversity of Mt Pendelikon (Sterea Ellas, Greece): a recent inventory reflecting contemporary dynamics. – *Willdenowia*, **41**: 151-165.
- Davis, P.H. 1970. *Lathyrus* (pp. 328-369), *Vicia* (274-325). – In: Davis, P.H. (ed.), *Flora of Turkey and the East Aegean Islands*. Vol. 3. Univ. Press, Edinburgh.
- Delipavlov, D. 2003. *Arctium* (p. 404), *Juniperus* (37), *Monotropa* (148). – In: Delipavlov, D. & Cheshmedzhiev, I. (eds), *Handbook for Plants in Bulgaria*. Agrar. Univ. Acad. Press, Plovdiv (in Bulgarian).
- Dimitrov, D. & Trifonov, V. 2006. Reports 35–38. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 2*. – *Phytol. Balcan.*, **12**(2): 284.
- Dimitrov, D. & Tzonev, R. 2002. On the distribution of *Ambrosia artemisiifolia* L. (Asteraceae) in Bulgaria. – *Phytol. Balcan.*, **8**(1): 31-33.
- Ganchev, I. 1984. *Cirsium oleracea* (L.) Scop. – In: Velchev, V. (ed.), *Red Data Book of PR Bulgaria*. Vol. 1, Plants, p. 90. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).
- Giannopoulos, K., Tan, Kit & Vold, G. 2011. Reports 20–61. – In: Vladimirov, V. & Tan, Kit (comps), *New floristic records in the Balkans: 16*. – *Phytol. Balcan.*, **17**(2): 250-255.
- Grozeva, N. 2007. *Chenopodium pumilio* (Chenopodiaceae): a new species to the Bulgarian flora. – *Phytol. Balcan.*, **13**(3): 331-334.
- Grozeva, N., Georgieva, M. & Valkova, M. 2004. Flowering plants and ferns. – In: Stoeva, M. (ed.), *Biological Diversity of Sinite Kamani Nature Park*, pp. 9-112. Stara Zagora (in Bulgarian).
- Halácsy, E. von 1900. *Conspectus Florae Graecae*. Vol. 1. Engelmann, Leipzig.
- Halácsy, E. von 1902. *Conspectus Florae Graecae*. Vol. 2. Engelmann, Leipzig.
- Halácsy, E. von 1908. *Conspectus Florae Graecae, Supplementum*. Engelmann, Leipzig.
- ILDIS. International Legume Database & Information Service. – <http://www.ildis.org/> (accessed October 2011).
- Kuzmanov, B. 1970. *Ribes*. – In: Jordanov, D. (ed.), *Fl. Reipubl. Popularis Bulgaricae*. Vol. 4, pp. 692-701. In Aedibus Acad. Sci. Bulgaricae, Serdicae (in Bulgarian).
- Maire, R. & Petitmengin, M. 1908. *Étude des plantes vasculaires récoltées en Grèce* (1906). Berger-Levrault, Nancy.
- Peev, D. 1992. *Asteraceae*. – In: Kozhuharov, S. (ed.), *Field Guide to the Vascular Plants in Bulgaria*, pp. 564-626. Nauka & Izkustvo, Sofia (in Bulgarian).
- Peev, D. & Tsoneva, S. 2009. *Saxifraga marginata* Sternb. – In: Petrova, A. & Vladimirov, V. (eds), *Red List of Bulgarian vascular plants*. – *Phytol. Balcan.*, **15**(1): 86.
- Petrova, A. 2006. *Silene velcevii* Jordanov & Panov. – In: Petrova, A. (ed.), *Atlas of Bulgarian Endemic Plants*, p. 62. Gea-Libris, Sofia.
- Petrova, A. 2008. Reports 72–78. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 7*. – *Phytol. Balcan.*, **14**(1): 141-142.
- Petrova, A., Trifonov, G., Venkova, D. & Ivanova, M. 2009. Reports 51–74. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 10*. – *Phytol. Balcan.*, **15**(1): 115-139.
- Petrova, A., Vassilev, R. & Assyov, B. 2010. Reports 131–150. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 14*. – *Phytol. Balcan.*, **16**(3): 429-431.
- Petrova, A. & Venkova, D. 2006. *Epipactis pontica* (Orchidaceae): a new species for the Bulgarian flora. – *Phytol. Balcan.*, **12**(2): 249-253.
- Petrova, A. & Venkova, D. 2008. *Epipactis exilis* and *E. greuteri* (Orchidaceae) in the Bulgarian Flora. – *Phytol. Balcan.*, **14**(1): 69-73.
- Petrova, A. & Vladimirov, V. (eds). 2009. *Red List of Bulgarian vascular plants*. – *Phytol. Balcan.*, **15**(1): 63-94.
- Petrova, A. & Vladimirov, V. 2010. *Balkan endemics in the Bulgarian flora*. – *Phytol. Balcan.*, **16**(2): 293-311.
- Popova, M. 2003. *Lilium* (pp. 441-442), *Mespilus* (196). – In: Delipavlov, D. & Cheshmedzhiev, I. (eds), *Handbook for Plants in Bulgaria*. Agrar. Univ. Acad. Press, Plovdiv (in Bulgarian).
- Strid, A. & Tan, Kit (eds). 1997. *Flora Hellenica*. Vol. 1. Koeltz Scientific Books, Königstein.
- Terziyski, D. 2003. *Ostrya*. – In: Delipavlov, D. & Cheshmedzhiev, I. (eds), *Handbook for Plants in Bulgaria*, p. 64. Agrar. Univ. Acad. Press, Plovdiv (in Bulgarian).
- Vladimirov, V. 2003. On the distribution of four alien *Compositae* species in Bulgaria. – *Phytol. Balcan.*, **9**(3): 513-516.
- Vladimirov, V. 2006. Reports 242–243. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 3*. – *Phytol. Balcan.*, **12**(3): 438-439.
- Vladimirov, V. 2007. Reports 123–131. – In: Vladimirov, V. & al. (eds), *New floristic records in the Balkans: 6*. – *Phytol. Balcan.*, **13**(3): 450-451.
- Vladimirov, V. 2009. *Erigeron sumatrensis* (Asteraceae): a recently recognized alien species in the Bulgarian flora. – *Phytol. Balcan.*, **15**(3): 361-365.
- Vladimirov, V., Ivanova, D. & Dimitrova, D. 2006. Reports 229–241. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 3*. – *Phytol. Balcan.*, **12**(3): 436-437.
- Vladimirov, V. & Petrova, A.S. 2009. Reports 92–102. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 12*. – *Phytol. Balcan.*, **15**(3): 449-451.
- Vladimirov, V. & Petrova, A.S. 2010. Reports 190–203. – In: Vladimirov, V. & al. (comps), *New floristic records in the Balkans: 14*. – *Phytol. Balcan.*, **16**(3): 441-443.