

New floristic records in the Balkans: 18*

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Abstract: New chorological data are presented for 149 species and subspecies from Bulgaria (1–14, 99, 132–137), Greece (22–54, 78–98, 106–131, 147–149), R Macedonia (55–77), and Turkey-in-Europe (15–21, 100–105, 138–146). The taxa belong to the following families: *Aceraceae* (22), *Amaryllidaceae* (90, 91), *Apiaceae* (1, 2, 23, 79, 80, 117), *Asclepiadaceae* (81), *Asparagaceae* (116), *Asteraceae* (3, 4, 24–26, 82, 105–107, 118), *Boraginaceae* (83, 146), *Brassicaceae* (5, 55–63, 108, 119), *Campanulaceae* (27, 84), *Caryophyllaceae* (6–9, 64–66, 120, 138, 139), *Celastraceae* (85), *Chenopodiaceae* (28, 109, 121), *Cistaceae* (29), *Crassulaceae* (67, 110), *Cupressaceae* (16), *Cyperaceae* (41), *Dipsacaceae* (86), *Elatinaceae* (30), *Euphorbiaceae* (10, 68), *Fabaceae* (11, 15, 17, 18, 31, 32, 87, 100–102, 111, 122, 132), *Fagaceae* (114), *Hypericaceae* (69), *Iridaceae* (92–95), *Lamiaceae* (12, 133), *Lauraceae* (103), *Liliaceae* s.l. (13, 42, 96–98, 126, 127, 140–143, 145), *Linaceae* (134), *Lythraceae* (33), *Orchidaceae* (128, 129, 147–149), *Orobanchaceae* (34, 35, 123), *Poaceae* (14, 43–54, 113, 130, 131, 135–137), *Polygonaceae* (70, 71), *Polypodiaceae* (78), *Primulaceae* (72, 115), *Ranunculaceae* (19–21, 99), *Rosaceae* (73–76, 104), *Rubiaceae* (36, 112), *Saxifragaceae* (37, 77, 124), *Scrophulariaceae* (38, 88, 125, 144), *Tiliaceae* (39), *Valerianaceae* (89) and *Violaceae* (40).

First reports for a country are: Greece – *Genista aetnensis* (87), *Asparagus plumosus* (116).

The publication includes contributions by: A. Asenov (1–14), M. Aybeke (15), M. Aybeke, F. Dane & G. Dalgiç (16), M. Aybeke, C. Kurt & A. Semerci (17, 18), F. Dane & G. Yilmaz (19–21), B. Biel & Kit Tan (22–54), D. Dimitrov (55–77), K. Giannopoulos, Kit Tan & G. Vold (78–98), T. Karakiev (99), S.T. Konyar (100–104), S. Leventer & F. Dane (105), K. Polymenakos & Kit Tan (106–113), Kit Tan, G. Sfikas, T. Adamopoulos & J. Zieliński (114–116), P. Trigas, G. Karetos & S. Tsiftsis (117–131), K. Vassilev, J. Stoyanov & H. Pedashenko (132–137), C. Yarcı & M. Aybeke (138–139), G. Yilmaz, G. Dalgiç & F. Dane (140–143), G. Yilmaz, F. Dane & N. Başak (144–145), G. Yilmaz, F. Dane & N.Ç. Demirkan (146), G. Zarkos, V. Christodoulou & Kit Tan (147–149).

This is the eighteenth 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, for R Macedonia by V. Matevski and for Turkey-in-Europe by F. Dane.

Reports 1–14

Asen Asenov

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Apiaceae

1. *Orlaya kochii* Heywood

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 23.07.2010, coll. A. Asenov (SO 106950).

A new species for the Znepole Region.

2. *Seseli peucedanoides* (M. Bieb.) Koso-Pol.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 23.07.2010, coll. A. Asenov (SO 106616).

A new species for the Znepole Region.

Asteraceae

3. *Centaurea phrygia* L.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1100 m, FN-30, 14.07.2008, coll. A. Asenov (SO 106855).

A new species for the Znepole Region.

4. *Jurinea albicaulis* Bunge

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 22.07.2010, coll. A. Asenov (SO 106952).

A new species for the Znepole Region.

Brassicaceae

5. *Cardamine graeca* L.

Bu Znepole Region: Mt Zemenska, on limestone, in an open-ridge area, FN-30, 31.05.2010, coll. A. Asenov (SO 106938).

A new species for the Znepole Region.

Caryophyllaceae

6. *Cerastium luridum* Guss.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 13.07.2007, coll. A. Asenov (SO 106864).

— Rhodopi Mts (*Eastern*): Golyamo Kamenyane village, on serpentine, 22.05.2004, coll. D. Pavlova (SO 103428).

— Mt Strandzha: Vitanovo reserve, Pazlaka locality, upwards from G. Aidare, 13.06.1995, coll. Ts. Denchev (SO 98258).

A new species for these floristic regions.

7. *Dianthus stenopetalus* Griseb.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge grassy places, close to peak Tichak, 1100 m, FN-30, 13.06.2010, coll. A. Asenov (SO 106402).

A new species for the Znepole Region.

8. *Dianthus stribrnyi* Velen.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 14.06.2010, coll. A. Asenov (SO 106207).

A new taxon for the Znepole Region.

9. *Minuartia mesogitana* (Boiss.) Hand.-Mazz.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 14.06.2007, coll. A. Asenov (SO 106852).

A new species for the Znepole Region.

Euphorbiaceae

10. *Euphorbia segetum* Neck.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 23.07.2010, coll. A. Asenov (SO 106904).

A new species for the Znepole Region.

Fabaceae

11. *Vicia melanops* Sm.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1150 m, FN-30, 20.06.2009, coll. A. Asenov (SO 106603).

A new species for the Znepole Region.

Lamiaceae

12. *Satureja coerulea* Sm.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 06.06.2007, coll. A. Asenov (SO 106980).

A new species for the Znepole Region.

Liliaceae s.l.

13. *Muscari armeniacum* Baker

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 28.04.2010, coll. A. Asenov (SO 106569).

New for the Znepole Region.

Poaceae

14. *Bromus erectus* subsp. *transsilvanicus* Hack.

Bu Znepole Region: Mt Zemenska, on limestone, in open-ridge rocky places, 1000 m, FN-30, 23.07.2010, coll. A. Asenov (SO 106969).

A new taxon for the Znepole Region.

Report 15

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Fabaceae

15. *Lupinus angustifolius* L. subsp. *angustifolius*

Tu(E) A1(E) Edirne: Meriç, Nasuhbeyli village, Kulaklık locality, in sandy waste, 49 m, 41°13'N, 26°21'E, 26.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 1564).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale and A2(E) Istanbul: Rumelihisarı (Chamberlain 1970). According to the International Legume Database & Information Service (ILDIS 2005), the taxon was recorded in Greece, Romania and European Turkey but it is not specified accurately from which provinces in European Turkey the records come.

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

Report 16

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Cupressaceae

16. *Juniperus oxycedrus* L. subsp. *oxycedrus*

Tu(E) A1(E) Edirne: Keşan, between Paşayığıt – Hamidiye, 137 m, 40°57'56"N, 26°38'17"E, 11.06.1988, coll. F. Dane & N. Başak, det. C. Yarcı (EDTU 1085); Keşan, Mecidiye, 61 m, 40°38'20"N, 26°32'14"E, 04.08.1996, coll. G. Dalgıç, det. G. Dalgıç (EDTU 3692); Keşan, Mecidiye, coast, 0 m, 40°38'20"N, 26°32'14"E, 04.06.1995, coll. G. Dalgıç, det. G. Dalgıç & M. Aybeke (EDTU 5959).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Kırklareli and A2(E) Istanbul: Sarıyer (Coode & Cullen 1965).

Reports 17–18

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Fabaceae

17. *Lathyrus niger* (L.) Bernh. subsp. *niger*

Tu(E) A1(E) Edirne: Lalapaşa, Kalkansöğüt village, in a pasture, 17.07.2003, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 1198).

New for A1(E) Edirne in the European Turkey. So far the species has been known from A1(E) Kırklareli: Demirköy and A2(E) Istanbul (Davis 1970). On ILDIS website (ILDIS 2005) the taxon is shown in European Turkey, but not in Edirne.

18. *Lathyrus nissolia* L.

Tu(E) A1(E) Edirne: Keşan, Kılıçköy village, in grassland, 24 m, 40°47'N, 26°33'E, 05.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 291); Edirne, Lalapaşa, Doğanköy village, in grassland, 230 m, 41°54'N, 26°39'E, 16.05.2004, coll. M. Aybeke, C. Kurt, A. Semerci, det. M. Aybeke (TTAE 306); Edirne, Uzunköprü, Çöpköy town, 56 m, 41°13'11"N, 26°49'22"E, 12.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 410); Edirne, Center, Üyükütatar village, in a pasture, 41°32'44"N, 26°36'36"E, 50 m, 26.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 444); Edirne, Center, Elçili village, 41°27'13.7"N, 26°38'38.1"E, 101 m, 26.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 480); Edirne, Meriç, Yakupbey village, in a pasture, 41°15'06.8"N, 26°32'46.3"E, 107 m, 26.05.2004, coll. M. Aybeke, C. Kurt & A. Semerci, det. M. Aybeke (TTAE 541).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale: Gelibolu, A2(E) Kırklareli: İğneada (Davis 1970). On ILDIS website (ILDIS 2005) the taxon is shown in European Turkey, but not in Edirne.

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Reports 19–21

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Ranunculaceae

19. *Ranunculus arvensis* L.

Tu(E) A1(E) Edirne: Center, 26 m, 41°40'28"N, 26°33'39"E, 15.04.1989, coll. F. Dane, det. A. Çırpıcı

(EDTU 2982); Uzunkopru: Degirmanci, near Degirmenci dam, 20 m, 41°18'37"N, 26°42'02"E, 25.04.1989, coll. F. Dane & N. Polat, det. A. Çirpıcı (EDTU 3460).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale and A2(E) Istanbul (Davis 1965).

20. *Ranunculus ficaria* subsp. *ficariiformis* Rouy & Foucaud

Tu(E) A1(E) Edirne: Centre, 26 m, 41°40'28"N, 26°33'39"E, 29.03.1987, coll. F. Dane & N. Başak, det. A. Çirpıcı (EDTU 591); Kesan: Mecidiye, 61 m, 40°38'20"N, 26°32'14"E, 23.04.1987, coll. F. Dane & G. Dalgiç, det. A. Çirpıcı (EDTU 596); Suleoğlu: Geckinli village, 144 m, 41°43'N, 26°51'E, 08.04.1993, coll. G. Denkel, det. A. Çirpıcı (EDTU 5557).

New for A1(E) in European Turkey. So far the species has been known from A2(E) Istanbul (Davis 1965).

21. *Ranunculus paludosus* Poir.

Tu(E) A1(E) Edirne: Kesan, Mecidiye, 61 m, 40°38'20"N, 26°32'14"E, 23.04.1987, coll. F. Dane & G. Dalgiç, det. A. Çirpıcı (EDTU 601).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale and A2(E) Istanbul (Davis 1965).

Reports 22–54

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This is the seventeenth report of new plant-records for the island of Samothraki (N Aegean islands, Nomos Evrou, Eparchia Samothrakis) based on fieldwork carried out over several 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.

Aceraceae

22. *Acer sempervirens* L.

Gr Samothraki: beach E-NE of Pachia Ammos, on gravelly bed of Vatos estuary, with *Platanus*,

15 m, 40°23'43"N, 25°36'13"E, 13.06.2008, *Biel* 08.183.

Confirming an earlier record by Ade & Rechinger (1938: 127) as *A. orientale*, and also supporting field observations of this species from Akr. Kipos on the eastern side of the island as noted in the University of Copenhagen Students' Report in May 1997 (hill slopes dominated by *Acer sempervirens* scrub). A specimen was also collected from Akr. Kipos in June 2002 by R. Düll (identity conf. J. Zieliński, February 2012).

Apiaceae

23. *Ridolfia segetum* Moris

Gr Samothraki: SW of Kamariotissa, *Thymus-Sarcopoterium* phrygana on coastal limestone slope, 10 m, 40°27'57"N, 25°27'24"E, 11.06.2000, *Biel* 00.056; SW of Kamariotissa, damp pasture beside pool behind coastal embankment, 5 m, 40°27'43"N, 25°27'33"E, 07.06.2008, *Biel* 08.016.

New for the N Aegean area.

Asteraceae

24. *Filago minima* (Sm.) Pers.

Gr Samothraki: N-NE of Pachia Ammos, small hill saddle with *Juniperus* and open phrygana, 620 m, 40°25'07"N, 25°35'47"E, 06.07.2011, *Biel* 11.352; sandy beach with *Vitex* scrub, E of Pachia Ammos, 10 m, 40°23'44"N, 25°34'55"E, 11.07.2011, *Biel* 11.388.

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

25. *Helminthotheca echioides* (L.) Holub

Gr Samothraki: NE of Kamariotissa, phrygana with oak and shrubs on coastal limestone slope, on porphyry, 10 m, 40°29'31"N, 25°29'42"E, 10.06.2000, *Biel* 00.039; S of Kamariotissa, dry ditch by damp uncultivated field ca. 50–300 m inland, on basalt loam, 5 m, 40°27'05"N, 25°28'23"E, 29.05.2002, *Biel* 02.064; W-SW of Kamariotissa, gravelly beach at northern edge of large coastal pool N of Ag. Andreas, 3 m, 40°28'13"N, 25°27'21"E, 17.06.2007, *Biel* 07.016.

Recorded from Thasos. Also noted near Kamariotissa.

26. *Leontodon crispus* Vill. subsp. *crispus*

Gr Samothraki: N-NE of Xiropotamos-Seli, rocky slopes with phrygana, 400 m, 40°27'16"N, 25°32'32"E, 20.06.2007, *Biel* 07.134; SW of Therma, mountainous cushion phrygana on

rocky ridge of Mt Fengari, 1580 m, 40°27'48"N, 25°35'04"E, 26.06.2007, *Biel* 07.275.

New for N Aegean area. *Leontodon crispus* subsp. *asper* is the more frequently encountered subspecies on Samothraki and Thasos.

Campanulaceae

27. *Campanula sparsa* subsp. *sphaerotherix* (Griseb.) Hayek

Gr Samothraki: SE of Therma, lower Fonias river valley with basalt rocks, 60 m, 40°28'45"N, 25°38'58"E, 14.06.2000, *Biel* 00.091.

New for the N Aegean area and first report for the Greek islands. Also noted N-NE of Pachia Ammos. Recorded from mainland Greece and two published localities in N Peloponnese (at the monastery of Mega Spileo and on Mt Killini).

Chenopodiaceae

28. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Gr Samothraki: S-SW of Alonia, dry stream bed with shrubs near dirt road between fields, ca. 100–200 m inland, on basalt loam, 5 m, 40°26'23"N, 25°29'29"E, 29.05.2002, *Biel* 02.050; NW of Chora, uncultivated field near road to Kamariotissa, on limestone and schist, 140 m, 40°28'29"N, 25°29'53"E, 29.05.2002, *Biel* 02.065; N-NW of Ano Karyotes, coastal phrygana with small damp areas, 2 m, 40°30'30"N, 25°34'45"E, 10.05.2010, *Biel* 10.421.

Recorded from Limnos. It was also noted in several other localities including Alonia, Kamariotissa, Pachia Ammos and Xiropotamos.

Cistaceae

29. *Fumana thymifolia* (L.) Webb

Gr Samothraki: NE of Kamariotissa, phrygana slope with shrubs, between fields, 15 m, 40°29'35"N, 25°29'50"E, 10.06.2000, *Biel* 00.041.

Recorded from Thasos and Limnos.

Elatinaceae

30. *Elatine macropoda* Guss. (Fig. 1)

Gr Samothraki: E-SE of Therma, large coastal wetland in alluvial forest W of Fonias river, 2 m, 40°29'34"N, 25°38'48"E, 12.07.2011, *Biel* 11.396.

New for the N Aegean area. The species is scattered in Greece, having been reported from the islands of Kerkira, Serifos, Lesvos and from Kalogria in NW Peloponnese. A large population was found on the muddy bottom of a temporary pool. It was at first

thought the plants represented *E. hydropiper* but the sepals are longer than the mature capsule and the flowers clearly pedicellate (see photo).



Fig. 1. *Elatine macropoda* (photo B. Biel).

Fabaceae

31. *Lathyrus annuus* L.

Gr Samothraki: N-NE of Kamariotissa, stream source with *Phragmites*, on flysch, 10 m, 40°28'59"N, 25°28'43"E, 10.06.2000, *Biel* 00.030; N of Therma, oak scrub with phrygana near road, 15 m, 40°30'01"N, 25°36'19"E, 05.05.2010, *Biel* 10.226; SW of Kamariotissa, ruderal road margin with temporary ditch, 20 m, 40°28'25"N, 25°28'52"E, 05.05.2011, *Biel* 11.074a.

Recorded from Thasos. Also found NE of Kamariotissa.

32. *Teline monspessulana* (L.) K. Koch

Gr Samothraki: Therma, walled cemetery with old trees, near village centre, 40 m, 40°29'45"N, 25°36'32"E, 12.06.2000, *Biel* 00.068.

New for the N Aegean area.

Lythraceae

33. *Lythrum portula* (L.) Webb

Gr Samothraki: NE of Therma, heavily grazed wetland with two temporary pools edged with *Vitex* scrub, behind coastal embankment, 3 m, 40°29'57"N, 25°37'23"E, 13.06.2000, *Biel* 00.079; *loc. ibid.*, 19.06.2007, *Biel* 07.104; E of Therma, sandy stream bed of Varades, in open *Pteridium* clearing, 5 m, 40°30'01"N, 25°36'30"E, 20.06.2008, *Biel* 08.296; E-SE of Therma, coastal wetland in alluvial forest W of Fonias river, 2 m, 40°29'34"N, 25°38'48"E, 27.06.2010, *Biel* 10.733.

New for the N Aegean area and apparently first report for the Greek islands. Recorded from mainland Greece.

Orobanchaceae

34. *Orobanche ramosa* L.

Gr Samothraki: S of Chora, walled cemetery with old trees, on basalt/porphyry, 280 m, 40°28'48"N, 25°31'32"E, 04.05.2010, *Biel* 10.135.

Recorded from Limnos. Other localities were noted near Alonia, Kato Kariotis, Therma and Xiropotamos. Det. H. Uhlich, June 2010.

35. *Orobanche schultzei* Mutel (Fig. 2)

Gr Samothraki: W-SW of Kamariotissa, uncultivated field above chapel, coastal limestone, 10 m, 40°28'09"N, 25°27'33"E, 02.05.2010, *Biel* 10.006; *loc. ibid.*, 03.05.2010, *Biel* 10.042; N of Therma, oak scrub with phrygana near road, 15 m, 40°30'01"N, 25°36'19"E, 05.05.2010, *Biel* 10.220. New for the N Aegean area. Det. H. Uhlich, June 2010.



Fig. 2. *Orobanche schultzei* (photo B. Biel).

Rubiaceae

36. *Cruciata pedemontana* (Bell.) Ehrend.

Gr Samothraki: E-SE of Chora, steep gravelly slope with open cushion phrygana below saddle of Saos ridge, 1100 m, 40°27'06"N, 25°34'28"E, 03.07.2011, *Biel* 11.321.

Confirming an earlier record by Ade & Rechinger (1938: 136) as *Galium pedemontanum* All.

Saxifragaceae

37. *Saxifraga rotundifolia* subsp. *chrysosplenifolia* (Boiss.) D.A. Webb

Gr Samothraki: W-SW of Anomeria-Isomata,

small stream valley with *Platanus* at north slope of Koufouklio, on granite, 780 m, 40°27'27"N, 25°38'07"E, 04.11.2008, *Biel* 08.368.

Recorded from Thasos. Other localities were noted W of Anomeria and SW of Therma.

Scrophulariaceae

38. *Linaria vulgaris* Mill.

Gr Samothraki: SE of Xiropotamos-Seli, orchard with ruined dwelling on a hill, on porphyry, 340 m, 40°26'51"N, 25°32'20"E, 02.10.2006, *Biel* 06.462.

New for the N Aegean area and apparently the first report for the Greek islands, otherwise occurring in northern Greece.

Tiliaceae

39. *Tilia cordata* Mill.

Gr Samothraki: Kamariotissa, roadsides, waste ground in village, 15 m, 40°28'45"N, 25°28'32"E, 02.07.2010, *Biel* 10.816.

New for the N Aegean area.



Fig. 3. *Viola sororia* (photo B. Biel).

Violaceae

40. *Viola sororia* Willd. (Fig. 3)

Gr Samothraki: NW of Anomeria-Isomata, pasture with trees amidst holiday homes, on basalt and porphyry, 150 m, 40°26'43"N, 25°40'13"E, 12.04.2006, *Biel* 06.333.

Found firmly established and self-seeding in a donkey pasture. An alien originating from the eastern part

of N America. Probably thrown out from the holiday homes.

Cyperaceae

41. *Carex hirta* L.

Gr Samothraki: NE of Therma, alluvial forest with damp meadows, 2 m, 40°30'07"N, 25°37'06"E, 06.05.2010, *Biel* 10.247 & 10.248.

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

Liliaceae s.l.

42. *Allium pallens* L. (Fig. 4)

Gr Samothraki: S of Kamariotissa, ruderal road margin with temporary ditch, 20 m, 40°28'25"N, 25°28'52"E, 29.06.2010, *Biel* 10.763; NE of Kamariotissa, slope at path above stream, 15 m, 40°28'53"N, 25°29'01"E, 02.07.2010, *Biel* 10.821.

New for the N Aegean area. Conf. D. Tzanoudakis, 2010.



Fig. 4. *Allium pallens* (photo B. Biel).

Poaceae

43. *Catabrosa aquatica* (L.) P. Beauv.

Gr Samothraki: E-SE of Therma, coastal wetland in alluvial forest W of Fonias river, 2 m, 40°29'37"N, 25°39'03"E, 15.07.2009, *Biel* 09.178.

New for the N Aegean area and apparently the first report for the Greek islands. Two other localities were noted NW of Anomeria and NW of Kamariotissa.

44. *Cynosurus effusus* Link

Gr Samothraki: N-NE of Pachia Ammos, *Quercus* slope east of mountain hut, 830 m, 40°25'24"N, 25°36'08"E, 16.05.2010, *Biel* 10.603.

Recorded from Thasos. Previously noted by R. Düll in 2002 and 2004.

45. *Digitaria sanguinalis* (L.) Scop.

Gr Samothraki: NE of Therma, heavily grazed wetland with two temporary pools edged by *Vitex* shrubs, behind coastal embankment, 3 m, 40°29'57"N, 25°37'23"E, 03.11.2008, *Biel* 08.343a.

Recorded from Thasos. Confirming the report by Katsikopoulos (1936: 12). Scattered in fields and at coast, mainly in the SW and NE plains (23 records).

46. *Echinochloa crus-galli* (L.) P. Beauv.

Gr Samothraki: N of Therma, edge of brackish lake behind gravelly beach, 2 m, 40°30'11"N, 25°36'24"E, 13.07.2009, *Biel* 09.144; N-NW of Anomeria, coastal swamp drying up S of Fonias tower, heavily grazed area, 3 m, 40°29'21"N, 25°39'34"E, 15.07.2009, *Biel* 09.182.

Recorded from Thasos. In fields and areas seasonally flooded. Confirming a report by Katsikopoulos (1936: 12). Other localities were noted near Kamariotissa, Palaeopolis and Therma.

47. *Elymus repens* (L.) Gould

Gr Samothraki: NE of Kamariotissa, roadside ditch on way to Therma, 3 m, 40°29'07"N, 25°29'02"E, 17.06.2007, *Biel* 07.045c.

Recorded from Thasos as *Agropyron repens*.

48. *Elymus sartorii* Boiss. & Heldr.

Gr Samothraki: W-SW of Kamariotissa, gravelly beach west of Ag. Andreas lagoon, 3 m, 40°28'16"N, 25°27'17"E, 27.06.2011, *Biel* 11.220.

New for the N Aegean area.

49. *Hordeum murinum* subsp. *glaucum* (Steud.) Tzvelev (Syn.: *Hordeum glaucum* Steud.)

Gr Samothraki: SW of Kamariotissa, seasonally wet wheat field beside dirt road, 4 m, 40°28'10"N, 25°27'50"E, 17.06.2007, *Biel* 07.011; near transmitting station SW of Therma, field road margins in *Erica-Arbutus* scrub, 210 m, 40°29'29"N, 25°35'33"E, 13.05.2010, *Biel* 10.540.

Other collections from the island have not been determined to subspecies level.

50. *Phalaris aquatica* L.

Gr Samothraki: SW of Kamariotissa, coastal limestone slopes with phrygana, 10 m, 40°27'49"N, 25°27'32"E, 18.06.2007, *Biel* 07.054.

Recorded from Ag. Evstratios. The species was reported by Katsikopoulos (1936: 12) as *Phalaris bulbosa*. Another locality was noted SW of Palaeopolis.

51. *Phalaris canariensis* L.

Gr Samothraki: SW of Kamariotissa, seasonally wet wheat field by dirt road, 4 m, 40°28'10"N, 25°27'50"E, 16.06.2007, *Biel* 07.005; S of Kamariotissa, grassy margins and roadside ditches of dirt track between fields, 20 m, 40°27'44"N, 25°28'17"E, 19.07.2009, *Biel* 09.252.

New for the N Aegean area.

52. *Setaria viridis* (L.) P. Beauv.

Gr Samothraki: NE and E of village of Therma, on the banks of the river Tsivdogiani, on gravelly sand, 50 m, 40°29'39"N, 25°36'35"E, 01.10.2006, *Biel* 06.433; S-SE of Profitis Ilias, olive grove with phrygana on low hill, 80 m, 40°24'26"N, 25°33'11"E, 23.06.2007, *Biel* 07.208.

Recorded from Thasos. Confirming report by Katsikopoulos (1936: 12). Two more sites were noted around Lakkoma.

53. *Triticum dicoccon* Schrank

Gr Samothraki: southern edge of Kamariotissa, behind the harbour. Poplar plantation with wet areas, 5 m, 40°28'21"N, 25°28'12"E, 08.05.2010, *Biel* 10.330.

Emmer wheat naturalized in the ruderal flora of a *Populus* plantation.

54. *Vulpia fasciculata* (Forssk.) Fritsch

Gr Samothraki: N of Therma, oak scrub with phrygana, 15 m, 40°30'01"N, 25°36'19"E, 05.05.2010, *Biel* 10.223.

Recorded from Thasos. Also noted N of Ano Karyotes.

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 55–77

Dimitar Dimitrov

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Brassicaceae**55. *Aethionema saxatile* subsp. *graecum* (Boiss. & Heldr.) Hayek**

Mk Mt Petrino, 13.04.1947, coll. *B. Kitanov* (SOM 166839); Stobi village, 09.04.1947, coll. *B. Kitanov* (SOM 166838).

This taxon has been known from Skopje, Katlanovo village, Valandovo, Gevgelija, and Bogdanci village (Micevski 1995).

56. *Alyssum saxatile* L. subsp. *saxatile*

Mk Mt Jablanica: stony places above Gorna Belica village, 1400 m, 22.07.1948, coll. *B. Kitanov*, det. *D. Dimitrov* (SOM 167677).

According to Micevski (1995), this subspecies does not occur in Macedonia.

57. *Cardamine enneaphyllos* (L.) Crantz var. *enneaphyllos*

Mk Above Smilevo village, Bitola district, 1300 m, 20.06.1947, coll. *B. Kitanov* (SOM 166849).

This species has been known from Mt Šar, Elak, Lešnica, Mavrovo, Vrben village, Mt Koža, and Bistra. Reported for Mt Jablanica (Micevski & Matevski 1995).

58. *Cardamine flexuosa* With.

Mk Stobi village, 09.04.1947, coll. *B. Kitanov* (SOM 166834); Mt Petrino, 13.04.1947, coll. *B. Kitanov* (SOM 166743).

This species has been known from Mt Šar, Ljuboten, and river Ljubotenska (Micevski & Matevski 1995).

59. *Draba lasiocarpa* Rochel

Mk Mt Petrino: in stony places on the ridge, Ochrid district, 01.05.1948, coll. *B. Kitanov* (SOM 166842); Krastavec locality: above Demir Kapija, on limestone, 800 m, 10.04.1947, coll. *B. Kitanov* (SOM 166841).

This species has been known from Skopska Crna Gora, Topolka River Gorge, Babuna River Gorge, Mt Kožuf, Dve Uši (Micevski 1995).

60. *Draba scardica* (Griseb.) Degen

Mk Mt Jablanica: in stony places on the slope above lake Podgorica, 1900 m, on limestone, 16.07.1948, coll. *B. Kitanov* (SO 106414).

This species has been known from Mt Šar, Mt Jakupica, Bistra, Mt Korab, Dešat, Mt Ilinska, Mt Kožuf, Luben, and Baba Sač (Kičevo district) (Micevski 1995).

61. *Erysimum comatum* Pančić

Mk Mt Jablanica: on the slope above lake Vevčansko, 1500 m, 23.07.1948, coll. *B. Kitanov* (SOM 166409).

This species has been known from Skopje, Žeden, Treska River Gorge, Matka, Radika River Gorge, Demir Kapija Gorge, Crni Drim Gorge (by Lukovo

village), Prilep, Kozjak, Mt Šar, Mt Jakupica, Mt Ilinska, and Mt Galičica (Micevski 1995).

62. *Erysimum graecum* Boiss. & Heldr.

Mk In herbaceous places in the Demir Kapija Gorge, 700 m, 10.04.1947, coll. *B. Kitanov* (SOM 166840).

This species has been known from Ochrid, Peštani village (Micevski 1995).

63. *Teesdalia coronopifolia* (J.P. Bergeret) Thell.

Mk Mt Petrino, 13.04.1947, coll. *B. Kitanov* (SOM 166836); Stobi village, 09.05.1947, coll. *B. Kitanov* (SOM 166834).

This species has been known from Skopje, Raduša mine, Prilep, Treskavec Monastery, Radoviš, Delčevo, Makedonska Kamenica village, Lukovica village, Gevgelija, Bogdanci village, and Furka village (Micevski 1995).

Caryophyllaceae

64. *Cerastium glomeratum* Thuill.

Mk Krastavec locality: in bushes, Demir Kapija, on limestone, 700 m, 10.04.1947, coll. *B. Kitanov* (SOM 166876).

This species has been known for Skopje (the city park), Taorska Klisura, Pčinja River Gorge, Topolka River Gorge, Kočani, Orizari village, Gevgelija (Micevski 1993)

65. *Cerastium pumilum* Curtis

Mk Mt Jablanica: above Gorna Belica village, 1400 m, 20.06.1948, coll. *B. Kitanov* (SOM 166413).

This species has been known from Skopje, Vodno, Veles, Ovče Pole, Delisinci village, Kočani, Istibanja village, Valandovo, Nov Dojran, Asanli village, Gevgelija, Bogdanci village, Mt Belasica, Mt Kožuf and Visoka Čuka (Micevski 1993).

66. *Silene asterias* Griseb.

Mk Bitola district: above Smilevo village, 1200 m, 20.06.1947, coll. *B. Kitanov* (SOM 166873).

This species has been known from Skopska Crna Gora, Mt Šar, Mt Jakupica, Salakova River, Kadina River, Mumdzica, Mavrovo, Vrben village, Bistra, Mt Baba, Pelister, Arvati village, Nidže, Kaimakčalan, Gorna Radika River Gorge, Torbeški Bridge, and Sostav (Micevski 1993).

Crassulaceae

67. *Sempervivum erythraeum* Velen.

Mk Mt Jablanica: the slope of peak Strižak, 20.08.1947, coll. *B. Kitanov* (SOM 166877).

This species was reported for Mt Belasica (Micevski 1998).

Euphorbiaceae

68. *Mercurialis ovata* Sternb. & Hoppe

Mk Krastavec locality: in rocky places, calcareous rocks and bushes above Demir Kapija, 500 m, 10.04.1947, coll. *B. Kitanov* (SOM 166860).

This species has been known from Skopska Crna Gora (Grupče), Valandovo, Plauš, Gevgelija, Gopčeli village, Strumica, Vodoča village, and Mt Galičica (Micevski 1998).

Hypericaceae

69. *Hypericum barbatum* var. *trichanthum* (Boiss. & Sprun.) Boiss.

Mk Mt Jablanica: Lake Ochrid, St. Stefan Bay, 30.07.1948, coll. *B. Kitanov* (SOM 167676).

This species has been reported for Mt Korab, Tanuše village, Kaimakčalan, Galičica, Polce (Micevski 1995).

Polygonaceae

70. *Rumex balcanicus* Rech. f.

Mk Mt Jablanica: in herbaceous places on the slope of Sliva Peak, 1200 m, 14.07.1948, coll. *B. Kitanov* (SOM 166407).

A very rare species known from Mt Bistra, Gorna Radika Gorge, and Lukovo Pole. Reported for Mavrovo district, Mt Koža (Micevski 1995).

71. *Rumex scutatus* L.

Mk Mt Jablanica: above Gorna Belica village, 1400 m, 23.07.1948, coll. *B. Kitanov* (SOM 167675).

A widely distributed species in the western and southern mountains: Šar, Korab, Bistra, Dešat, Krčin, Stogovo, Dudica and Gorna Radika (Micevski 1995).

Primulaceae

72. *Androsace hedraeantha* Griseb.

Mk Mt Petrino: in herbaceous places on the ridge, Ochrid district, 01.05.1948, coll. *B. Kitanov* (SOM 100137).

This species has been known from Mt Šar (Rudoka) and Mt Korab (Micevski 1998).

Rosaceae

73. *Cotoneaster integerrimus* Medik.

Mk Mt Jablanica: beneath lake Labuništa, 1400 m, 14.08.1947, coll. *B. Kitanov* (SOM 167952).

This species has been known from Skopska Crna Gora, Mt Šar, Jakupica, Karadžica, Mt Bistra, Mavrovo, Koža, Vrben village, Mavrovo Gorge, and Žedenska Klisura (Micevski 1995).

74. *Filipendula ulmaria* (L.) Maxim.

Mk Mt Jablanica: beneath Raduč Peak, 1400 m, 17.08.1947, coll. *B. Kitanov* (SOM 167673).
New for Mt Jablanica.

75. *Rubus saxatilis* L.

Mk Mt Dobro Pole: 24.05.1916, coll. *J. Mrkvička* (SOM 38135).

This species has been known from Karadžica, Mt Rada (above Patiška Reka village). Reported for Karadžica, Mt Jakupica, Mt Suva Gora, and Mt Rudoka (Micevski & Matevski 1998).

76. *Sorbus graeca* (Spach) Kotschy f. *cuneifolia*

Mk Mt Jablanica: at the shore of Lake Ochrid, St. Stefan Bay, 30.07.1947, coll. *B. Kitanov* (SOM 167674).

This taxon has been known from Mt Galičica (Micevski 1998).

Saxifragaceae**77. *Saxifraga exarata* Vill.**

Mk Mt Petrino: Ohrid district, upwards to the peak, 1500 m, 01.05.1948, coll. *B. Kitanov* (SOM 166868).

This species has been known from Mt Šar (Micevski 1998).

Reports 78–98**Konstantinos Giannopoulos¹, Kit Tan² & Gert Vold³**

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

Polypodiaceae**78. *Polypodium vulgare* L.**

Gr Nomos & Eparchia Ilias: limestone rock crevices at Akr. Kounopeli, 10 m, 38°05'N, 21°20'E, 18.12.2011, *Kit Tan, G. Vold & Giannopoulos* 31196 (herb. Kit); Ag. Georgios to the village of Foloï, oak forest of Kapeli, 750 m, 37°44'N, 21°44'E, 04.07.2011, *Kit Tan, G. Vold & Giannopoulos* obs.

New for eparchia and nomos.

Apiaceae**79. *Carum multiflorum* (Sm.) Boiss.**

Gr Nomos & Eparchia Ilias: limestone rock crevices at Akr. Kounopeli, 10 m, 38°05'N, 21°20'E, 18.12.2011, *Kit Tan, G. Vold & Giannopoulos* 31195 (herb. Kit).
New for eparchia and nomos; although widespread in Greece this is the first report for NW Peloponnese and second for W Peloponnese. Numerous sterile rosettes with scaly remains of the leaf sheaths dotted the low limestone cliff. It has been collected from the fortress at Pilos (*Stamatiadou* 12019, ATH), this is the first record for W Peloponnese (Nomos Messenias, Eparchia Pilios).

80. *Daucus carota* subsp. *maximus* (Desf.) Ball

Gr Nomos & Eparchia Ilias: near Efyra, 131 m, 37°50'N, 21°29'E, 18.12.2011, *Kit Tan, G. Vold & Giannopoulos* 31188 (herb. Kit).

New for eparchia and nomos.

Asclepiadaceae**81. *Cynanchum acutum* L.**

Gr Nomos & Eparchia Ilias: at the mouth of Pinios river, near Bouka SW of Palaiochori, sea level, 37°49'N, 21°14'E, 31.07.2006, *Giannopoulos* obs. (photo, det. Kit Tan, March 2012).

New for eparchia and nomos.

Asteraceae**82. *Atractylis gummifera* L. (Fig. 5)**

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

New for Eparchia Olimbias.



Fig. 5. *Atractylis gummifera* (photo K. Giannopoulos).

Boraginaceae**83. *Buglossoides incrassata*** (Guss.) I.M. Johnst.**Gr** Nomos Ilias, Eparchia Olimbias: near Kaiafas, 2 m, 37°30'N, 21°35'E, 04.03.2012, *Giannopoulos* s.n. (herb. Giannopoulos).

New for eparchia.

Campanulaceae**84. *Campanula versicolor*** Andrews**Gr** Nomos & Eparchia Ilias: road to plateau of Astras, 1400 m, 37°54'N, 21°47'E, 25.09.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* 31123a (seed collected).

New for eparchia.

**Fig. 6.** *Evonymus europaeus* (photo K. Giannopoulos).**Celastraceae****85. *Evonymus europaeus*** L. (Fig. 6)**Gr** Nomos & Eparchia Ilias: plateau of Astras, 1230 m, 37°54'N, 21°47'E, 19.11.2011, *Giannopoulos* obs. (photos, det. *Kit Tan*, November 2011).

New for eparchia and nomos.

Dipsacaceae**86. *Scabiosa divaricata*** Jacq.**Gr** Nomos & Eparchia Ilias: Efyra, 131 m, 37°50'N, 21°29'E, 18.12.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* 31187 (herb. Kit, herb. Giannopoulos).

New for eparchia and nomos.

Fabaceae**87. *Genista aetnensis*** (Biv.) DC.**Gr** Nomos & Eparchia Ilias: Avgio to Lake Pinios, planted, 90 m, 37°54'N, 21°26'E, 18.12.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* 31192 (herb. Kit, herb. Giannopoulos).

This species is not mentioned in the Greek flora either as an ornamental or planted. The shrubs grow well to a height of 2–3 m at the dam, flowering and fruiting profusely, producing 1–2 seeds per legume. The species is endemic to Sardinia and Sicily. On Mt Etna (Sicily, prov. Catania) it dominates as open scrub on old lava flows. The leaves are fugacious (early withering) so the twigs appear bare; the flowers are yellow with a sickly-sweet scent.

Scrophulariaceae**88. *Kickxia spuria*** subsp. *integrifolia* (Brot.) R. Fern.**Gr** Nomos Ilias, Eparchia Olimbias: Skliava, 40 m, 37°37'N, 21°38'E, 02.10.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* 31156 (herb. Kit, herb. Giannopoulos).

New for eparchia.

Valerianaceae**89. *Centranthus ruber*** (L.) DC.**Gr** Nomos Ilias, Eparchia Olimbias: gorge of river Neda, 310 m, 37°23'N, 21°50'E, 02.10.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* obs.

New for eparchia and nomos.

Amaryllidaceae**90. *Narcissus tazetta*** L.**Gr** Nomos Ilias, Eparchia Olimbias: wet meadow near Zacharo, ca. 3 m, 37°29'N, 21°37'E, 17.12.2011, *Kit Tan*, *G. Vold* & *Giannopoulos* 31180 (herb. Kit).

New for eparchia and nomos.

91. *Sternbergia lutea* (L.) Spreng. (Fig. 7)**Gr** Nomos Ilias, Eparchia Olimbias: near the village of Rama, 520 m, 37°30'N, 21°48'E, 28.10.2011, *Giannopoulos* obs. (photos); Nomos Messinias, Eparchia Trifilias: Mt Lykaion (Likeo), 1295–1330 m, 37°27'N,**Fig. 7.** *Sternbergia lutea* (photo K. Giannopoulos).

21°58'E, 01.10.2011, *Kit Tan, G. Vold & Giannopoulos* 31139 (herb. Kit, herb. Giannopoulos).

New for Eparchia Olimbias and Mt Likeo (Eparchia Trifilias). Abundant on limestone scree slopes.

Iridaceae

92. *Crocus biflorus* subsp. *melantherus* B. Mathew (Fig. 8)

Gr Nomos Ilias, Eparchia Olimbias: temple of Vasses, 1135 m, 37°26'N, 21°54'E, 17.12.2011, *Kit Tan, G. Vold & Giannopoulos* 31183 (herb. Kit, herb. Giannopoulos).

New for eparchia and nomos. An autumn-flowering endemic, all the other subspecies in Greece are spring-flowering.



Fig. 8. *Crocus biflorus* subsp. *melantherus* (photo K. Giannopoulos).

93. *Crocus laevigatus* Bory & Chaub.

Gr Nomos Ilias, Eparchia Olimbias: Nea Figalia, 500 m, 37°26'N, 21°47'E, 17.12.2011, *Kit Tan, G. Vold & Giannopoulos* obs. (photos); Ancient Figalia, 515 m, 37°23'N, 21°50'E, 17.12.2011, *Kit Tan, G. Vold & Giannopoulos* obs. (photos); Vasses to Andritsenia, 1130 m, 37°27'N, 21°55'E, 17.12.2011, *Kit Tan, G. Vold & Giannopoulos* obs. (photos).

New for eparchia and nomos. An endemic crocus with a long flowering period lasting from autumn through winter to early spring.

94. *Crocus olivieri* J. Gay subsp. *olivieri*

Gr Nomos & Eparchia Ilias: plateau of Astras, NW of Mt Lamba, 1410 m, 37°54'N, 21°47'E, 08.04.2012, *Kit Tan, G. Vold & Giannopoulos*

obs. (photos); Nomos Ilias, Eparchia Olimbias: along road from Andritsenia to Vasses, 1120 m, 37°27'N, 21°55'E, 17.03.2012, *Giannopoulos* s.n. (herb. Giannopoulos, det. Kit Tan, March 2012).

New for eparchies and nomos and also the first records for W Peloponnese. There were large populations at Astras, carpeting entire meadows a golden-yellow.

95. *Romulea linaresii* subsp. *graeca* Bég. (Fig. 9)

Gr Nomos Ilias, Eparchia Olimbias: near the village of Arini, 285 m, 37°30'N, 21°41'E, 04.03.2012, *Giannopoulos* s.n. (herb. Giannopoulos, det. Kit Tan, March 2012).

New for Eparchia Olimbias. Distinct by its deep violet-blue, concolorous perianth.



Fig. 9. *Romulea linaresii* subsp. *graeca* (photo K. Giannopoulos).

Liliaceae s.l.

96. *Allium callimischon* Link (Fig. 10)

Gr Nomos Messinias, Eparchia Trifilias: Mt Lykaion (Likeo), 1220 m, 37°27'N, 21°57'E, 01.10.2011, *Kit Tan, G. Vold & Giannopoulos* 31135 (herb. Kit, herb. Giannopoulos).

New for Eparchia Trifilias and Mt Lykaio where there were abundant populations. Already noted from Nomos Ilias and reported by Giannopoulos & al. (2011: 379).



Fig. 10. *Allium callimischon* (photo K. Giannopoulos).

97. *Gagea peduncularis* (J. & C. Presl) Pascher

Gr Nomos Ilias, Eparchia Olimbias: near village of Minthi, 690 m, 37°30'N, 21°45'E, 17.03.2012, Giannopoulos s.n. (herb. Giannopoulos, det. Kit Tan, March 2012).

New for eparchia and nomos and first report from W Peloponnese. Except for *Gagea graeca* (white-flowered) no yellow-flowered species of *Gagea* have been reported from Nomos Ilias. Several *Gagea* species are now discovered, including one with an unusual inflorescence representing a new taxon (conf. J.M. Tison, April 2012).

98. *Scilla bifolia* L.

Gr Nomos & Eparchia Ilias: near the village of Karatula, 82 m, 37°45'N, 21°32'E, 04.03.2012, Giannopoulos s.n. (herb. Giannopoulos, det. Kit Tan, March 2012); plateau of Astras, NW of Mt Lambia, 1410 m, 37°54'N, 21°47'E, 08.04.2012, Kit Tan, G. Vold & Giannopoulos obs. (photos)

New for eparchia and nomos. Abundant after snow melt, in dense carpets together with *Crocus sieberi*.

Report 99

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Ranunculaceae**99. *Thalictrum flavum* L.**

Bu Black Sea Coast (*Southern*): in wet grasslands, near the road between Tsarevo and Ahtopol, NW of Varvara village, NG-76, 16.07.2011, coll. T. Karakiev (SO 106543).

This species has been known in Bulgaria from the floristic regions of Northeast Bulgaria and Danubian Plain (Assyov & Petrova 2006).

Reports 100–104

Sevil Tütüncü Konyar

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Fabaceae**100. *Caesalpinia gilliesii* Hook.**

Tu(E) A1(E) Edirne: Centre, Binevler, 26 m,

41°40'28"N, 26°33'39"E, 17.06.2005, coll. S.

Tütüncü Konyar, det. G. Dalgıç (EDTU9319).

A new record for European Turkey. So far the species has been known from A2(A) Istanbul and B1 Izmir (Chamberlain 1970)

101. *Cercis siliquastrum* L.

Tu(E) A1(E) Edirne: Centre, in front of Selimiye Mosque, 26 m, 41°40'28"N, 26°33'39"E, 23.04.2005, coll. S. Tütüncü Konyar, det. G. Dalgıç (EDTU9315).

New for A1(E) with the specimens collected from Edirne in European Turkey. So far the species has been known from A2(E) Istanbul (Chamberlain & Yaltırık 1970).

102. *Spartium junceum* L.

Tu(E) A1(E) Edirne: Centre, Binevler, 26 m, 41°40'28"N, 26°33'39"E, 25.05.2005, coll. S. Tütüncü Konyar, det. G. Dalgıç (EDTU 9313).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale: Suvla, A2(E) Istanbul: Halkalı (Chamberlain 1970)

Lauraceae**103. *Laurus nobilis* L.**

Tu(E) A1(E) Edirne: Centre, 26 m, 41°40'28"N, 26°33'39"E, 25.04.2005, coll. S. Tütüncü Konyar, det. G. Dalgıç (EDTU 9311).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Çanakkale (Demiriz 1982).

Rosaceae**104. *Laurocerasus officinalis* Roem.**

Tu(E) A1(E) Edirne: Centre, 26 m, 41°40'28"N, 26°33'39"E, 20.04.2004, coll. S. Tütüncü Konyar, det. G. Dalgıç (EDTU 9314).

New for A1(E) in European Turkey. So far the species has been known from A2(E) Istanbul (Browicz 1972).

Report 105

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Asteraceae**105. *Sonchus tenerrimus* L.**

Tu(E) A1(E) Edirne: Erikli, in waste places,

40°38'17"N, 26°27'15"E, 27 m, 17.04.2011, coll. & det. S. Leventer (EDTU 13160).

- A1(E) Tekirdağ: Sarköy, in sandy and damp places, 40°36'58"N, 27°06'03"E, 0 m, 24.04.2011, coll. F. Dane, det. S. Leventer (EDTU 13159).

A new record for European Turkey. The closest known locality of this species is in Greece (Boulos 1976). Therefore, it is not surprising that the taxon was recorded in European Turkey. In Turkey the species has been known so far from A(5) Sinop, B(1) and C(1) Izmir (Matthews 1975).

Reports 106–113

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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).

Asteraceae

106. *Cirsium eriophorum* (L.) Scop. (Fig. 11)

Gr Nomos & Eparchia Attikis: Mt Parnitha, in openings of *Abies* forest near the Bafi refuge, 1150 m, 38°10'N, 23°43'E, 13.07.2010, Polymenakos obs. (photo, conf. Kit Tan, February 2012).

New for Mt Parnitha. A somewhat surprising discovery of such a conspicuous species with its distinctive, large, densely arachnoid-lanate capitula. Approximately 10 plants were found; they had not been noted before on this well-botanized mountain so close to Athens. The plants were less robust than plants seen elsewhere in Greece.

107. *Pulicaria dysenterica* (L.) Bernh. (Fig. 12)

Gr Nomos & Eparchia Attikis: Mt Parnitha, along main road from Agia Triada to summit, ca. 1080 m, 585 m, 38°09'N, 23°43'E, 21.09.2008, Polymenakos obs. (photo, conf. Kit Tan, February 2012).

New for Mt Parnitha. Only one individual was observed; note the well-camouflaged spider in the photo.

Brassicaceae

108. *Diplotaxis viminea* (L.) DC.

Gr Nomos & Eparchia Attikis: olive grove near Dilesi,



Fig. 11. *Cirsium eriophorum* (photo K. Polymenakos).



Fig. 12. *Pulicaria dysenterica* (photo K. Polymenakos).

50 m from border with Nomos Viotias, 140 m, 38°19'N, 23°40'E, 04.03.2012, Polymenakos obs. (photo, conf. Kit Tan, March 2012).

New for eparchia Attikis. Together with *Veronica polita*, *Nonea echioides* and *Buglossoides arvensis* subsp. *arvensis*.

Chenopodiaceae

109. *Chenopodium ambrosioides* L. (Fig. 13)

Gr Nomos Attikis, Eparchia Attikis/Pireos: on sand around Lake Rapentosa on Mt Pendeli, 160 m, 38°06'N, 23°55'E, 18.12.2011, *Polymenakos* obs. (photo, conf. Kit Tan, February 2012).

New for Mt Pendeli. Numerous specimens were seen at the lake edge in mid-December; the late season may have accounted for the omission of this species from the vascular plant inventory of Baliousis & Yannitsaros (2011).



Fig. 13. *Chenopodium ambrosioides* (photo K. Polymenakos).

Crassulaceae

110. *Sedum caespitosum* (Cav.) DC.

Gr Nomos & Eparchia Attikis: road margin near Dilesi, close to border with Nomos Viotias, 140 m, 38°19'N, 23°40'E, 04.03.2012, *Polymenakos* obs. (photo, conf. Kit Tan, March 2012).

New for eparchia Attikis. With *Sinapis alba*, *Diplotaxis viminea* and taxa reported in association with the latter (see record no. 108).

Fabaceae

111. *Astragalus glycyphyllos* subsp. *glycyphylloides* (DC.) Maire & Petitm. (Fig. 14)

Gr Nomos Achaïas, Eparchia Kalavriton: Akrata to Solos, road margin, 960 m, 38°01'N, 22°15'E, 05.06.2011, *Polymenakos* & *Zarkos* obs. (photo, conf. Kit Tan, March 2012).

New for Chelmos; recorded otherwise in the north Peloponnese from Mt Kallifoni.

Rubiaceae

112. *Galium verrucosum* Huds. (Fig. 15)

Gr Nomos & Eparchia Attikis: Nea Makri, foothills

of Mt Pendeli, abandoned ground between buildings, used as parking lot, 40 m, 38°05'N, 23°57'E, 02.05.2009, *Polymenakos* obs. (photo, conf. Kit Tan, March 2012).

New for Mt Pendeli, also recorded from Marathon and Vravrona bay in same eparchia. With *Papaver rhoeas*, *Orlaya grandiflora*, *Notobasis syriaca*, etc. The plants were in fruiting state and the warty fruits quite unmistakable.



Fig. 14. *Astragalus glycyphyllos* subsp. *glycyphylloides* (photo K. Polymenakos).



Fig. 15. *Galium verrucosum* (photo K. Polymenakos).

Poaceae**113. *Arundo collina* Ten.**

Gr Nomos Fthiotidos, Eparchia Lokridos: roadsides from Molos to Mendenitsa, 430 m, 38°45'N, 22°36'E, 10.12.2011, *Polymenakos* obs. (photo).
New for Mt Kallidromo. Seen in several places at the foothill zone and common between Ag. Konstantinos and Molos.

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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).

Reports 114–116

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Fagaceae**114. *Quercus robur* subsp. *pedunculiflora* (K. Koch) Menitsky (Fig. 16)**

Gr Nomos Rethimnis, Eparchia Amariou: in mixed oak forest between Meronas and Mesonisia, 675 m, 35°13'N, 24°36'E, 01.07.2011, *Sfikas* 14037 (KOR, herb. Sfikas; det. Kit Tan, conf. J).



Fig. 16. Distribution of *Quercus robur* subsp. *pedunculiflora* in Greece.

Zieliński, February 2012); above Armeni, road margins, 450 m, 35°17'N, 24°38'E, 01.07.2011, *T. Adamopoulos* obs.; Yious Kampos plateau, near Spili, field margins, 815 m, 35°13'N, 24°34'E, 01.07.2011, *T. Adamopoulos* obs.; Vrysses, south of Amari, mixed oak forest, 570 m, 35°12'N, 24°38'E, 01.07.2011, *T. Adamopoulos* obs.

New for Crete. During the summer of 2011 a botanical investigation was made of some areas in the Cretan mountains considered suitable for the installation of wind generators. Some oak trees in the Nomos of Rethymnou were found which differed greatly from *Quercus pubescens* and *Q. ithaburensis* subsp. *macrolepis* growing in the area. Field observations and thorough examination of herbarium material revealed that the peculiar oaks belong to *Quercus robur* subsp. *pedunculiflora*, a taxon not recorded so far from Crete.

Quercus robur subsp. *pedunculiflora* is widespread in the Balkan Peninsula and SW Asia, where the type subspecies *robur* is very rare or absent. It differs from the latter mainly by its distinctly longer petioles, but this feature is often combined with the cuneate leaf base, sparsely stellate-hairy lower leaf surface and pubescent young stems. The oaks found in Crete represent a rather rare morphotype with densely pubescent young stems, but such plants can be observed within different parts of the subspecies range. A similar oak population, distinguished by Bulgarian botanists as *Quercus mestensis* Bondev & Gančev, has been examined by one of us (J.Z.) in SW Bulgaria, where there are numerous forms ranging from densely hairy to the glabrous.

The distance of nearly 400 km separating the Cretan populations of *Quercus robur* subsp. *pedunculiflora* from its nearest locality in Evvia is unusual, but we gained the impression they form part of the native flora. The trees did not occur as single individuals and were noted in at least four different places. The habitat was field margins and mixed deciduous forest, similar to the known habitat of *Q. robur* subsp. *pedunculiflora* in Greece. This discovery changes somewhat the known distribution of the taxon not only in the Balkan Peninsula, but also its general distribution. The newly found localities are the southernmost known places of occurrence of *Q. robur*. So far such stands of the species were recorded from Sicily.

In our opinion the populations of *Quercus robur* subsp. *pedunculiflora* in Crete merit protection not only for botanical curiosity. Owing to their probably

long-lasting isolation they could be the valuable object of future genetic studies.

Primulaceae

115. *Samolus valerandi* L. (Fig. 17)

Gr Nomos Rethimnis, Eparchia Amariou: siliceous rocks at foothills of Mt Meterizi, 665m, 35°14'N, 24°48'E, 29.06.2011, flowering, *T. Adamopoulos* obs. (photo).

New for eparchia. A few individuals up to 10 cm tall were found on the wet vertical rocks.



Fig. 17. *Samolus valerandi* (photo T. Adamopoulos).

Asparagaceae

116. *Asparagus plumosus* Baker

Gr Nomos & Eparchia Korinthias: coastal forest of Pefkias, near Xylokastro, ca. 10 m, 38°05'N, 22°38'E, 24.12.2011, fruiting, *Sfikas* 14077 (herb. *Sfikas*).

Asparagus plumosus is a slender climber with filiform cladodes grouped in fascicles providing a feathery-leaved, fern-like appearance, thus it is often used in floral arrangements. The flowers are white (produced in July to September) and the berries ripen shiny black. It is native to S Africa and cultivated as an ornamental in Greece as in other parts of the Mediterranean. This appears to be the first record of it locally naturalized in Greece. The seeds are bird-dispersed and it was abundant in the thickets in the famous pine forest in northern Peloponnese, beneath the 'mastic' trees of *Pistacia lentiscus*.

Reports 117–131

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Apiaceae

117. *Cachrys cristata* DC.

Gr Nomos Evvias, Eparchia Chalkidos: Evvia Island, between Kerasia and Papades villages, evergreen scrub on ophiolitic substrate, 400 m, 38°54'N, 23°21'E, 21.06.2008, *P. Trigas* 5071 (ACA).

New for W Aegean Islands.

Asteraceae

118. *Crepis vesicaria* L.

Gr Nomos Kikladon, Eparchia Milou: Milos Island, Trachilas area at the N part of the island, phrygana and garrigue on volcanic rocks, 10–50 m, 36°46'N, 24°25'E, 17.05.2008, *P. Trigas* & *G. Karetsos* 4617 (ACA).

New for Milos Island.

Brassicaceae

119. *Cardamine bulbifera* (L.) Crantz

Gr Nomos & Eparchia Phthiotidas, Mt Oiti, western slopes of Pirgos peak, damp places in *Abies cephalonica* woodland, limestone, 1670 m, 38°47'N, 22°16'E, 03.07.2011, *P. Trigas* & *G. Karetsos* 5012 (ACA).

New for Mt Oiti.

Caryophyllaceae

120. *Saponaria glutinosa* M. Bieb.

Gr Nomos Fokidas, Eparchia Parnassidos: Mt Giona, ca. 0.5 km W of Prosilio village, clearings and roadsides in *Abies cephalonica* woodland, 1050 m, 38°37'N, 22°21'E, 12.07.2006, *P. Trigas* & *G. Karetsos* 4493 (ACA).

New for Mt Giona.

Chenopodiaceae

121. *Halocnemum strobilaceum* (Pall.) M. Bieb.

Gr Nomos & Eparchia Attikis, Paralia Oropou, Nea

Palatia area, salt marshes, 0 m, 38°20'N, 23°46'E, 19.11.2011, *P. Trigas* 5066 (ACA).

New for Nomos Attikis and E Sterea Ellas.

Fabaceae

122. *Cytisus procumbens* (Willd.) Spreng. (Fig. 18)

Gr Nomos Evvias, Eparchia Chalkidos: Evvia Island, ca. 3 km E of the town of Mantoudi, close to Kimasi beach, ophiolitic rocks in *Pinus halepensis* woodland, 20 m, 38°48'N, 23°30'E, 19.03.2008, *P. Trigas* 4552 (ACA).

New for W Aegean Islands and southernmost occurrence in Greece. *Cytisus procumbens* is mainly a mountain species and its presence so near the sea on Evvia is quite unusual, probably manifesting itself as part of a so-called serpentine syndrome. Approximately 30 individuals were observed in the locality.



Fig. 18. *Cytisus procumbens* (photo P. Trigas).

Orobanchaceae

123. *Orobanche nana* (Reut.) Beck

Gr Nomos Kikladon, Eparchia Milou: Milos Island, Trachilas area at the N part of the island, phrygana and garrigue on volcanic rocks, on *Helichrysum stoechas* subsp. *barrelieri*, 50 m, 36°46'N, 24°25'E, 17.05.2008, *P. Trigas* & *G. Karetsos* 4659 (ACA).

New for Milos Island.

Saxifragaceae

124. *Saxifraga marginata* Sternb.

Gr Nomos Fokidas, Eparchia Parnassidos: Mt Giona, Makrilakka area S of Piramida peak, west facing limestone cliffs, 2200 m, 38°37'N, 22°13'E, 12.07.2006, *P. Trigas* & *G. Karetsos* 4516 (ACA).

New for Mt Giona. In Sterea Ellas, only recorded from Mts Vardousia and Parnassos.

Scrophulariaceae

125. *Odontites glutinosa* (M. Bieb.) Benth. [Syn.: *Macrosyringion glutinosum* (M. Bieb.) Rothm.]

Gr Nomos Fokidas, Eparchia Parnassidos: Mt Giona, along the path from EOS shelter to Piramida peak, limestone rock crevices, 2200 m, 38°39'N, 22°15'E, 08.10.2006, P. Trigas & G. Karetsos 4549 (ACA); Paliovouni, limestone rock and scree, 1970 m, 38°38'N, 22°18'E, 21.07.2006, Kit Tan & G. Vold obs.

New for Mt Giona and mainland Greece. In Greece recorded only from Mts Taigetos and Chelmos in the Peloponnese, and Levka Ori in Crete.

Liliaceae s.l.

126. *Allium lagarophyllum* Brullo & al. (Fig. 19)

Gr Nomos & Eparchia Phthiotidas: Mt Oiti, upper part of Gorgopotamos gorge, crevices of limestone rocks and cliffs in sparse *Abies cephalonica* woodland, 1520 m, 38°48'N, 22°20'E, 04.07.2011, P. Trigas & G. Karetsos 5038 (ACA).

Allium lagarophyllum was, until now, known only from the type locality on the slopes of the Assopos river valley at the end of the Bralos passage (Brullo & al. 1993), at an altitude of ca. 100 m a.s.l. Specimens from Mt Oiti match the original description of *A. lagarophyllum* in all characters except colour of perianth mid-vein (purplish instead of greenish in type material), the longer style (2.0–2.5 mm instead of ca. 1 mm) and the equal stamens. Moreover, the filaments are dimorphic, a character not mentioned in the original description of *A. lagarophyllum*. Plants from Mt Oiti have terete outer filaments, while those of the inner stamens are narrowly triangular and flat. A few hundred individuals were observed in the area. The species may also occur in the lower reaches of



Fig. 19. *Allium lagarophyllum* (photo P. Trigas).

the gorge which are largely inaccessible. Specimens from Mt Oiti previously identified by Karetsos (2002) as *A. meteoricum* Heldr. & Hausskn. are in fact, *A. lagarophyllum*.

127. *Allium sphaerocephalon* subsp. *aegaeum* (Heldr. & Halácsy) Karavok. & Tzanoud.

Gr Nomos Kikladon, Eparchia Milou: Milos Island, Trachilas area at the N part of the island, sandy places on littoral volcanic rocks, 20 m, 36°46'N, 24°25'E, 17.05.2008, P. Trigas & G. Karetsos 4643 (ACA).

New for Milos Island. *Allium sphaerocephalon* subsp. *aegaeum* is recorded from the East Aegean Islands, Limnos Island in N Aegean and northern Kiklades. This is the southernmost record for this taxon. About 70 individuals were observed in Trachilas area.

Orchidaceae

128. *Dactylorhiza saccifera* (Brongn.) Soó

Gr Nomos Kavallas, Eparchia Nestou: Ori Lekanis (Mt Lekani), E and NE of the village of Lekani, margins of *Fagus sylvatica* forests, 880 m, 41°09'N, 24°29'E, 17.07.2011, S. Tsiftsis obs.; 1010 m, 41°09'N, 24°30'E, 16.07.2011, S. Tsiftsis obs.; 920 m, 41°10'N, 24°30'E, 16.07.2011, S. Tsiftsis obs.; 980 m, 41°09'N, 24°31'E, 16.07.2011, S. Tsiftsis obs.; 920 m, 41°10'N, 24°31'E, 16.07.2011, S. Tsiftsis obs.; 735 m, 41°10'N, 24°31'E, 960 m, 17.07.2011, S. Tsiftsis obs.; 41°10'N, 24°31'E, 17.07.2011; 1030 m, 41°10'N, 24°31'E, 17.07.2011, S. Tsiftsis obs.

New for Mt Lekani, common in beech forest.

129. *Epipactis pontica* Taubenheim

Gr Nomos Kavallas, Eparchia Nestou: Ori Lekanis (Mt Lekani), *Fagus sylvatica* forests, 910 m, 41°05'N, 24°23'E, 16.07.2011, S. Tsiftsis obs.; 920 m, 41°05'N, 24°24'E, 16.07.2011, S. Tsiftsis obs.; 940 m, 41°09'N, 24°30'E, 16.07.2011, S. Tsiftsis obs.; 1000 m, 41°09'N, 24°30'E, 16.07.2011, S. Tsiftsis obs.; 960 m, 41°10'N, 24°31'E, 17.07.2011, S. Tsiftsis obs.

Although, *E. pontica* has been first reported for Greece by Tsiftsis & al. (2007) who found it on the Rhodopi mountain range, these sites present its southwestern distribution limits in the Balkan Peninsula. According to Tsiftsis & Karagiannakidou (2009) *Epipactis pontica* has been evaluated against the IUCN criteria and it has been found to be vulnerable (VU). However, as the total number of

individuals which have been counted in these new sites was not high, its IUCN threat category cannot be downgraded. In total, less than 50 individuals have been counted in those sites. As a result, the total number of individuals known to be present in Greece does not seem to be more than 350.

Poaceae

130. *Aira cupaniana* Guss.

Gr Nomos Kikladon, Eparchia Milou: Milos Island, Trachilas area at the N part of the island, phrygana and garrigue on volcanic rocks, 10–50 m, 36°46'N, 24°25'E, 17.05.2008, *P. Trigas & G. Karetos* 4631 (ACA).

New for Milos Island.

131. *Cynosurus effusus* Link

Gr Nomos Kikladon, Eparchia Milou: Milos Island, Trachilas area at the N part of the island, phrygana and garrigue on volcanic rocks, 10–50 m, 36°46'N, 24°25'E, 17.05.2008, *P. Trigas & G. Karetos* 4630 (ACA).

New for Milos Island.

Reports 132–137

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Fabaceae

132. *Trifolium dalmaticum* Vis.

Bu Forebalkan (*Eastern*): in xerophilous grasslands around Krushevo village, N43.06173, E25.12085, LH-46, 17.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167837).

This is a new species for this floristic region. It is recorded in 10 other floristic regions, according to Assyov & Petrova (2006).

Lamiaceae

133. *Thymus glabrescens* Willd.

Bu Valley of River Struma (*Southern*): in dry grasslands around Dolno Spanchevo village, N41.41918, E23.39700, GL-08, 24.05.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167845).

— Mt Slavyanka: near Paril village, Hambar Dere, in

open stony calcareous terrains at 1450 m, GL-29, 09.07.1991, coll. *I. Pashaliev* (SOM 151960).

— Mt Sredna Gora (*Western*): Mt Lozenska, in the eastern part of Rusamski Meadows, with NW exposition, GN-01, 23.07.2006, coll. *H. Pedashenko* (SOM 163651); Ihtimanska Sredna Gora, in grasslands above Belitsa village, GN-30, 15.07.2008, coll. *D. Dimitrov* (SO 105081).

So far unknown species for these floristic regions.

Linaceae

134. *Linum corymbulosum* Rchb.

Bu Forebalkan (*Western*): in dry grasslands on calcareous terrains SE of Chelopek village, Guchkovets locality, Vratsa district, GN-17, 04.08.1959, coll. *V. Velchev* (SOM 154752).

— Forebalkan (*Eastern*): in xerophilous grasslands around Krushevo village, N43.06173, E25.12085, LH-46, 17.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167846).

— Mt Slavyanka: in dry grasslands near the road above Yanevo village, GL-09, 13.06.1992, coll. *I. Pashaliev* (SOM 151567).

A new species for these floristic regions.

Poaceae

135. *Agrostis castellana* Boiss. & Reut.

Bu Forebalkan (*Eastern*): in xero-mesophytic grasslands near Bogatovo village, N43.01686, E25.15073, LH-46, 18.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167844, 167847); in xero-mesophytic grasslands near Badevtsi village, N42.94804, E26.22803, LH-94, 19.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167851).

— Balkan Range (*Central*): in mesophytic grasslands near Chernovrah village, N42.89619, E25.51637, LH-74, 18.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167849); on stony slopes northwards of Klisura village, above the Sofia-Karlovo road, KH-93, 30.07.1999, coll. *A. Petrova* (SOM 158542).

This is a new species for these floristic regions.

136. *Festuca pseudodalmatica* Domin

Bu Forebalkan (*Eastern*): in xero-mesophytic grasslands near Bogatovo village, N43.01686, E25.15073, LH-46, 18.07.2011, coll. *K. Vassilev, J. Stoyanov & H. Pedashenko* (SOM 167847).

— West Frontier Mts: Mt Vlahina, in mead-

ows around Tsarvaritsa village, N42.05822, E22.82684, FN-55, 05.06.2010, coll. K. Vassilev & H. Pedashenko (SOM 166903).

- Valley of River Struma (*Northern*): on calcareous terrains S of Chetirtsi village, FM-57, 05.06.2010, coll. K. Vassilev & H. Pedashenko (SOM 166911).
- Mt Sredna Gora (*Western*): Mt Lozenska, in xerophyllous grasslands on peak Lalina Mogila, GN-01, 08.06.2006, coll. K. Vassilev & H. Pedashenko (SOM 166624); Mt Lozenska, in a meadow N of Pasarel village, GN-01, 07.08.2006, coll. H. Pedashenko (SOM 163741).

A new species for these floristic regions.

137. *Vulpia muralis* (Kunth) Nees

Bu Forebalkan (*Eastern*): in grasslands near Streltsi village, N42.95722, E26.29306, MH-35, 19.07.2011, coll. K. Vassilev, J. Stoyanov & H. Pedashenko (SOM 167852).

This is the first record of the species from this floristic region. It has a limited distribution in Bulgaria. According to Assyov & Petrova (2006), it is known from the Black Sea Coast (*Southern*), Forebalkan (*Western*), Mt Sredna Gora (*Western*), Mt Strandzha.

Reports 138–139

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Caryophyllaceae

138. *Minuartia glomerata* (M. Bieb.) Degen

Tu(E) A1(E) Edirne: Lalapaşa, between Lalapaşa-Sinanköy, 172 m, 41°50'N, 26°44'E, 15.06.1987, coll. & det. C. Yarcı (EDTU 135); Lalapaşa, at entrance to Sinanköy, 181 m, 41°48'N, 26°43'E, 24.05.1986, coll. & det. C. Yarcı (EDTU 386); Centre, between Edirne-Kapıkule, at fieldside, 26 m, 41°40'28"N, 26°33'39"E, 25.05.1986, coll. & det. C. Yarcı (EDTU 387); Süleoğlu, Süleoğlu dam road, 156 m, 41°46'02"N, 26°54'43"E, 25.05.1987, coll. & det. C. Yarcı (EDTU 516); Centre, Budakdoğanca village, 98 m, 41°45'37"N, 26°20'33"E, 02.06.1987, coll. H. Arda, det. C. Yarcı (EDTU 801); Centre, Sarayakpınar place, 135 m, 41°46'39"N, 26°28'51"E,

02.06.1987, coll. G. Dalgıç & F. Dane, det. C. Yarcı (EDTU 816); Süleoğlu, at Geçkinli pool, 144 m, 41°43'N, 26°51'E, 25.05.1987, coll. & det. C. Yarcı (EDTU 832); Süleoğlu, 2 km between Domurcalı-Taşlımüsellim, 196 m, 41°49'N, 26°49'E, 01.06.1987, coll. & det. C. Yarcı (EDTU 946); Centrum, Kulaköyü village, 535 m, 42°00'N, 27°17'E, 19.06.1986, coll. & det. C. Yarcı (EDTU 1104).

- A1(E) Kırklareli: Kofçaz, Kocayazı village, 535 m, 42°00'N, 27°17'E, 18.06.1986, coll. & det. C. Yarcı (EDTU 426); Kofçaz, between Kofçaz and Kocayazı, 535 m, 42°00'N, 27°17'E, 18.06.1986, coll. & det. C. Yarcı (EDTU 1103).

New for A1(E) Edirne and Kırklareli in European Turkey. So far the species has been known from A1 Çanakkale (McNeill 1967).

139. *Minuartia anatolica* (Boiss.) Woron. var. *polymorpha* McNeill

Tu(E) A1(E) Kırklareli: Vize, between Vize and Soğucak, 316 m, 41°39'N, 27°39'E, 06.06.1987, coll. & det. C. Yarcı (EDTU 338); Soğucak village, 316 m, 41°39'N, 27°39'E, 06.06.1987, coll. & det. C. Yarcı (EDTU 713).

New for A1(E) in European Turkey. So far the species has been known from A1(A) Balıkesir, A2 Bilecik, A5 Amasya, B3 Afyon, B5 Kayseri, B7 Erzincan, C2 Denizli, C3 Antalya, C4 Konya, C5 İçel (McNeill 1967).

Reports 140–143

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Liliaceae s.l.

140. *Ornithogalum montanum* Cyr.

Tu(E) A1(E) Edirne: Centre, 26 m, 41°40'28"N, 26°33'39"E, 11.04.1989, coll. G. Dalgıç (EDTU 3166).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Tekirdag and A2(E) Istanbul (Cullen 1984).

141. *Ornithogalum orthophyllum* Ten.

Tu(E) A1(E) Edirne: Centre, Sarayakpınar village, 135 m, 41°46'39"N, 26°28'51"E, 02.06.1987, coll. G. Dalgıç & N. Başak (EDTU 813); Hasanpınar village, 94 m, 41°10'N, 26°45'E, 11.05.1988, coll.

G. Olgun & al. (EDTU 2034); Budakdoganca village, 98 m, 41°45'37"N, 26°20'33"E, 09.06.1988, coll. G. Dalgıç (EDTU 2152); Hacıdanışment village, on Muhittinbaba Hill, 405 m, 41°54'33"N, 26°49'24"E, 09.06.1988, coll. G. Dalgıç (EDTU 2157); Süloğlu: Tatarlar village, at the roadside, 156 m, 41°46'02"N, 26°54'43"E, 25.05.1987, coll. G. Olgun & G. Dalgıç (EDTU 731); Lalapasa: Kalkansogut village, at the roadside, 172 m, 41°50'N, 26°44'E, 14.05.1989, coll. G. Dalgıç & A. Dalgıç (EDTU 3195).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Kırklareli and A2(E) Istanbul (Cullen 1984).

142. *Ornithogalum sigmoideum* Freyn & Sint.

Tu(E) A1(E) Edirne: Centre, Musabeyli village, 109 m, 41°41'N, 26°40'E, 23.06.1989, coll. F. Dane & N. Aktaş (EDTU 3580); Süleoğlu, Geçkinli village, 144 m, 41°43'N, 26°51'E, 25.05.1987, coll. G. Olgun & C. Yarcı (EDTU 835).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Kırklareli and A2(E) Istanbul (Cullen 1984).

143. *Ornithogalum umbellatum* L.

Tu(E) A1(E) Edirne: Center, Degirmenyenikoy village, near river Tunca, 35 m, 41°45'N, 26°33'E, 20.04.1987, coll. F. Dane (EDTU 663); around Faculty of Medicine, 02.05.1988, coll. G. Dalgıç (EDTU 2922); Yagcili village, 179 m, 41°47'N, 26°50'E, 15.04.1989, coll. G. Dalgıç & N. Polat (EDTU 3156); Havsa, 70 m, 41°33'01"N, 26°49'13"E, 24.04.1988, coll. G. Dalgıç & N. Başak (EDTU 1956); Kesan, Mecidiye, at the seaside, 0 m, 40°38'20"N, 26°32'14"E, 01.05.1988, coll. G. Dalgıç & N. Başak (EDTU 1974); Uzunkopru, Kavacık village, near a stream, 34 m, 41°11'14"N, 26°39'56"E, 02.05.1987, coll. F. Dane (EDTU 682); Lalapasa: Bağlıkderesi, 172 m, 41°50'N, 26°44'E, 18.04.1989, coll. G. Dalgıç & A. Dalgıç (EDTU 3160); Ipsala, Sarpdere, 73 m, 40°53'N, 26°25'E, 09.04.1988, coll. G. Dalgıç & N. Başak (EDTU 1916).

— A1(E) Kırklareli: Babaeski, Kırklareli – Babaeski, 10 km, 55 m, 41°25'57"N, 27°05'35"E, 01.05.1988, coll. G. Dalgıç & N. Başak (EDTU 1978); Derekoy, 446 m, 41°55'58"N, 27°22'00"E, 23.04.1988, coll. G. Dalgıç & N. Başak (EDTU 1944); Pehlivanlı village, 8 m, 41°20'54"N, 26°55'23"E, 25.04.1989, coll. G. Dalgıç (EDTU 3107).

New for A1(E) Edirne and A1(E) Kırklareli. So far the species has been known from A1(E) Tekirdağ and A2(E) Istanbul (Cullen 1984).

Reports 144–145

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Scrophulariaceae

144. *Linaria genistifolia* (L.) Mill. subsp. *genistifolia*

Tu(E) A1(E) Tekirdağ: Saray, Saray – Lüleburgaz 15 km, 152 m, 41°26'26"N, 27°55'19"E, 22.05.2001, coll. E. Düzalan, det. F. Dane (EDTU 8265).

New for A1(E) Tekirdağ in European Turkey. So far the species has been known from A1(E) Kırklareli and A2(E) Istanbul (Davis 1978).

Liliaceae

145. *Tulipa undulatifolia* Boiss.

Tu(E) A1(E) Kırklareli: Lüleburgaz, Akçakoy, in a meadow, 122 m, 41°22'N, 27°33'E, 23.04.1991, coll. & det. N. Başak (EDTU 4680).

New for A1(E) Kırklareli in European Turkey. So far the species has been known from A1(E) Tekirdağ (Marais 1984).

Report 146

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Boraginaceae

146. *Anchusa officinalis* L.

Tu(E) A1(E) Edirne: Centre, around Bosnakoy village, 26 m, 41°40'28"N, 26°33'39"E, 09.11.1997, coll. N.Ç. Demirkan (EDTU 7713); Karaagac-Pazarkule 2 km, 23 m, 41°39'28"N, 26°31'25"E, 24.05.1998, coll. N.Ç. Demirkan (EDTU 7714).

New for A1(E) Edirne in European Turkey. So far the species has been known from A1(E) Kırklareli and A2(E) Istanbul (Chamberlain 1978).

Reports 147–149

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

Orchidaceae

147. *Dactylorhiza romana* (Sebast.) Soó

Gr Nomos & Eparchia Korinthias: edge of Mougosto forest, Kesari to Throfari, 800 m, 37°59'N, 22°35'E, 26.04.2011, Zarkos & Christodoulou obs. (photos, noted in association with *Vicia laeta*, reported as new for Nomos Korinthias). *Cistus creticus* and *C. monspeliensis* were predominant at the forest margin.

148. *Epipactis microphylla* (Ehrh.) Swartz (Fig. 20)

Gr Nomos & Eparchia Korinthias: Mt Killini, Kato Tarsos to Steno, near the small river Olvios, 940 m, 37°59'N, 22°22'E, 10.06.2011, Zarkos & Christodoulou obs. (photos, conf. Kit Tan, February 2012).

New for Mt Killini. The plants were found beneath *Platanus orientalis*, together with *Dactylorhiza saccifera* and *Ruscus aculeatus*.



Fig. 20. *Epipactis microphylla* (photo G. Zarkos).

149. *Platanthera chlorantha* (Custer) Rchb. (Fig. 21)

Gr Nomos & Eparchia Korinthias: Mt Killini, Flabouritsa gorge, in *Abies cephalonica* and *Pinus nigra* forest, 1265 m, 37°56'N, 22°26'E, 10.07.2009, Zarkos & Christodoulou obs. (photos, conf. Kit Tan, February 2012).

New for Mt Killini. Within the shaded gorge at this locality, *Cephalanthera longifolia*, *C. rubra*, *Epipactis helleborine*, *Neottia nidus-avis*, *Monotropa hypopitys* and *Pyrola chlorantha* abound. The photo indicates unusually short lateral sepals but this is an optical illusion. Also noted in Mougosto forest, Kesari to Throfari on 28.05.2009.



Fig. 21. *Platanthera chlorantha* (photo V. Christodoulou).

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