

New floristic records in the Balkans: 3*

Compiled by Vladimir Vladimirov¹, Gheorghe Dihoru² & Kit Tan³

¹ Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: vdvlad@bio.bas.bg

² Institute of Biology, Romanian Academy, Splaiul Independentei 296, 060031 Bucharest VI, Romania

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

* Reports for Bulgaria have been reviewed by V. Vladimirov, for Romania by G. Dihoru, and for Greece by Kit Tan.

Abstract: New chorological data are presented for 243 species and subspecies from Bulgaria (records no. 1-12, 109-131, 229-243), Greece (13-70, 132-228), and Romania (71-108). The taxa belong to the following families: *Acanthaceae* (71), *Adiantaceae* (229), *Apiaceae* (1, 15-21, 99, 100, 109, 133-136), *Apocynaceae* (22), *Asteraceae* (2, 3, 23-25, 72, 101, 137-146, 203-206, 230, 231, 242), *Betulaceae* (232), *Boraginaceae* (4, 26-28, 207, 208), *Brassicaceae* (29, 102, 147-150, 209-212), *Campanulaceae* (30-32, 73-75, 151, 152, 213, 214, 233, 234), *Caprifoliaceae* (33), *Caryophyllaceae* (5, 6, 34-36, 86, 117-119, 128, 153-156, 215-217, 235), *Celastraceae* (157), *Ceratophyllaceae* (37, 38), *Chenopodiaceae* (39), *Convolvulaceae* (158), *Corylaceae* (76), *Crassulaceae* (40, 87, 88, 159, 160), *Cyperaceae* (124-126, 131), *Dipsacaceae* (103, 161-163), *Equisetaceae* (13), *Euphorbiaceae* (41-43, 77), *Fabaceae* (7, 8, 44, 45, 89, 90, 110, 111, 120, 121, 129, 164-168, 218, 219), *Fagaceae* (78, 79), *Fumariaceae* (80), *Gentianaceae* (169), *Geraniaceae* (46, 47, 170, 171, 220), *Grossulariaceae* (236), *Guttiferae* (9, 112, 172), *Iridaceae* (65, 66, 85), *Juncaceae* (240), *Lamiaceae* (10, 48-51, 81, 173-179, 221), *Liliaceae* (12, 67, 68, 106, 197-199, 228, 241), *Linaceae* (180, 237), *Lythraceae* (52), *Malvaceae* (53, 181), *Oleaceae* (104), *Onagraceae* (182), *Orchidaceae* (91-97, 107, 114, 200-202), *Papaveraceae* (54), *Plantaginaceae* (122), *Poaceae* (69-70, 108, 115, 116, 127), *Polygalaceae* (183), *Polygonaceae* (55), *Pyrolaceae* (184), *Ranunculaceae* (11, 83, 84, 113, 123, 185), *Rhamnaceae* (56), *Rosaceae* (130, 186-189, 222), *Rubiaceae* (57, 190, 223-225), *Salicaceae* (58), *Salviniaceae* (98), *Santalaceae* (191), *Sapindaceae* (243), *Saxifragaceae* (59, 192), *Scrophulariaceae* (60-63, 82, 105, 193, 194, 226, 238), *Taxaceae* (132), *Thelypteridaceae* (14), *Thymelaeaceae* (195, 227), *Tiliaceae* (196), and *Violaceae* (64, 239).

First reports for countries are: Greece – *Callitriche hamulata* (37) and *Cytisus scoparius* (218). *Koelreuteria paniculata* (243) is reported for the first time as an escape for Bulgaria.

The publication includes contributions by S. Bancheva & M. Delcheva (1-12), B. Biel & Kit Tan (13-70), I. Costache (71-97), G. Dihoru & D. Răduțoiu (98-108), A.S. Petrova & R. Vassilev (109-116), D. Sopotlieva (117-127), S. Stoyanov, S. Bancheva & M. Delcheva (128-131), Kit Tan & G. Vold (132-202), Kit Tan, G. Vold & G. Sfikas (203-228), V. Vladimirov, D. Ivanova & D. Dimitrova (229-241), V. Vladimirov (242-243).

This is the third of a series of the reports dealing with the new chorological data 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 1–12

Svetlana Bancheva & Malina Delcheva

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria,
e-mail: bancheva@bio.bas.bg, malinad@bio.bas.bg

Apiaceae

1. *Bupleurum apiculatum* Friv.

Bu West Frontier Mts: Mt Ograzhden, NW of Karnalovo village, 242 m, 41.47070 N, 23.21087 E, with flowers, 07.07.2003, coll. S. Bancheva & M. Delcheva (SOM 163289).

Asteraceae

2. *Carduus acicularis* Bertol.

Bu West Frontier Mts: Mt Ograzhden, NW of Karnalovo village, 242 m, 41.47070 N, 23.21087 E, with flowers, 07.07.2003, coll. S. Bancheva & M. Delcheva (SOM 163287).

3. *Carthamus dentatus* (Forsk.) Vahl

Bu West Frontier Mts: Mt Ograzhden, NW of Karnalovo village, 242 m, 41.47070 N, 23.21087 E, with flowers, 07.07.2003, coll. S. Bancheva & M. Delcheva (SOM 163288).

Boraginaceae

4. *Neatostema apulum* (L.) I.M. Johnst.

Bu West Frontier Mts: Mt Ograzhden, NW of Karnalovo village, 242 m, 41.47070 N, 23.21087 E, with flowers, 07.07.2003, coll. S. Bancheva & M. Delcheva (SOM 163294); Mt Malashevsk, above Vulkovo village, 294 m, 41.58251 N, 23.21347 E, with fruits, 15.07.2003, coll. S. Bancheva & M. Delcheva (SOM 162899).

Caryophyllaceae

5. *Cerastium roeseri* Boiss. & Heldr.

Bu Rila Mts: W of Razlog town, 5 km off the St. Ekaterina Monastery, on the left side of the road, 934 m, 41.88029 N, 23.42702 E, with fruits, 11.06.2003, coll. S. Bancheva & M. Delcheva (SOM 163291).

6. *Cerastium velenovskyi* Hayek

Bu Rila Mts: 3 km off Razlog town, along the road to Bachevo village, 867 m, with fruits, 41.89994 N, 23.45244 E, 12.06.2003, coll. S. Bancheva & M. Delcheva (SOM 163284).

Fabaceae

7. *Hippocrepis unisiliquosa* L.

Bu Thracian Lowland: NW of Harmanli town, 166 m, 41.94235 N, 25.87673 E, with fruits, 24.06.2004, coll. S. Bancheva, M. Delcheva & D. Dimitrov (SOM 163290).

8. *Lathyrus annuus* L.

Bu Rila Mts: Tourskite Kazarmi locality, on the right side of the road to the Banishte Mineral Baths, 906 m, 41.91331 N, 23.44788 E, with flowers, 12.06.2003, coll. S. Bancheva & M. Delcheva (SOM 163292).

Guttiferae

9. *Hypericum umbellatum* Kern.

Bu West Frontier Mts: Mt Ograzhden, NW of Bogoroditsa (Sestrino) village, above peak Arapliyska Chouka, 457 m, 41.50875 N, 23.20417 E, with flowers, 19.05.2004, coll. S. Bancheva & M. Delcheva (SOM 163286).

Lamiaceae

10. *Stachys cretica* subsp. *bulgarica* Rech.f.

Bu West Frontier Mts: Mt Ograzhden, NW of Karnalovo village, 242 m, 41.47070 N, 23.21087 E, with flowers, 07.07.2003, coll. S. Bancheva & M. Delcheva (SOM 163293).

Ranunculaceae

11. *Ranunculus sprunerianus* Boiss.

Bu West Frontier Mts: Mt Ograzhden, NW of Bogoroditsa (Sestrino) village, above peak Arapliyska Chouka, 457 m, 41.50875 N, 23.20417 E, with flowers, 19.05.2004, coll. S. Bancheva & M. Delcheva (SOM 162900).

Liliaceae s.l.

12. *Allium nigrum* L.

Bu Valley of River Strouma (Southern): SE of Dolno Spanchevo village, 150 m, 41.41668 N, 23.38018 E, with flowers, 21.05.2004, coll. S. Bancheva & M. Delcheva (SOM 163285).

Reports 13–70

Burkhard Biel¹ & Kit Tan²¹ Am Judengarten 3, D-97204 Höchberg, Germany, e-mail: b.biel@arcor.de² Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bi.ku.dk (author for correspondence)

This is the second report of new plant-records for the island of Samothraki (N Aegean islands) based on fieldwork carried out in the years 2000, 2001, 2002 and 2006. The 58 records listed are all new to the island of Samothraki and when specifically stated, to the floristic region N Aegean (NAe) as circumscribed in *Flora Hellenica* (Strid & Tan 1997).

Equisetaceae**13. *Equisetum arvense* L.**

Gr Samothraki: SE of Ano Meria, fenced area in alluvial forest of Agistros river, on gravelly sand, 20 m, 40°27'37" N, 25°40'55" E, 28.05.2002, *Biel* 02.034. Another small population was noted on a slope c. 400 m to the northwest.

Thelypteridaceae**14. *Thelypteris palustris* Schott**

Gr Samothraki: E-SE of Therma, large coastal wetland in alluvial forest, 2 m, 40°29'34" N, 25°38'48" E, 31.05.2002, *Biel* 02.093. A few plants were found beneath *Alnus glutinosa*, sheltered by bushes.

New for the N Aegean islands.

Apiaceae**15. *Coriandrum sativum* L.**

Gr Samothraki: SW of Xiropotamos, gravelly river bed with shrubs, 20 m, 40°25'46" N, 25°30'45" E, 27.05.2002, *Biel* 02.021. Apparently naturalized.

16. *Eryngium maritimum* L.

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, 28.04.2001, *Biel* 01.014. Only few plants found.

17. *Myrrhoides nodosa* (L.) Cannon

Gr Samothraki: N of Therma, open oak wood with phrygana, on porphyritic or basalt substrate, 30 m, 40°29'53" N, 25°36'26" E, 02.06.2002, *Biel* 02.105.

18. *Oenanthe fistulosa* L.

Gr Samothraki: E-SE of Therma, large coastal wetland in alluvial forest, 2 m, 40°29'34" N, 25°38'48" E, 31.05.2002, *Biel* 02.081.

An additional site was noted, c. 3 km distant.

19. *Scaligeria napiformis* (Spreng.) Grande

Gr Samothraki: N of Therma, open oak wood with phrygana, on porphyritic or basalt substrate,

30 m, 40°29'53" N, 25°36'26" E, 02.06.2002, *Biel* 02.104.

20. *Tordylium maximum* L.

Gr Samothraki: SW of Kamariotissa, at northern edge of flat coastal lagoon, on sandy ground, 10 m, 40°27'49" N, 25°27'32" E, 02.04.2006, *Biel* 06.029. Three other sites were noted in the same area and also SW of Xiropotamos.

New for the N Aegean islands.

21. *Torilis arvensis* subsp. *neglecta* (Schult.) Thell.

Gr Samothraki: W-SW of Palaeopolis, shrubby places near edge of stream, loamy soil, 5 m, 40°29'45" N, 25°30'17" E, 30.05.2002, *Biel* 02.109.

Apocynaceae**22. *Vinca major* L.**

Gr Samothraki: six sites were noted near Alonia, Ano Kariotis, Ano Meria, Chora and Therma, but no vouchers were taken as the species is quite unmistakable (field note, *Biel* obs.).

Asteraceae**23. *Crepis fraasii* Sch. Bip.**

Gr Samothraki: SW of Kamariotissa, margin of fallow field below phrygana slope, coastal limestone, 10 m, 40°28'09" N, 25°27'33" E, 02.04.2006, *Biel* 06.007. Another population was noted in the same area, 300 m to the west.

24. *Doronicum columnae* Ten.

Gr Samothraki: NW of Therma, heavily grazed open scrub on both sides of stream, 20 m, 40°29'57" N, 25°37'23" E, 31.05.2002, *Biel* 02.084. A few individuals were found in the coastal plain, *D. orientale* being more common on the northern slopes. New for the N Aegean islands.

25. *Lactuca viminea* subsp. *ramosissima* (All.) Bonnier

Gr Samothraki: southern outskirts of Chora (Samo-

thraki), road margin, *Pinus* woodland overlying basalt, 270 m, 40°28'47" N, 25°31'32" E, 25.10.2002, *Biel* 02.150.

New for the N Aegean islands.

Boraginaceae

26. *Cynoglossum columnae* Ten.

Gr Samothraki: S-SW of Kamariotissa, fallow field with basaltic loam, 6 m, 40°28'15" N, 25°28'11" E, 07.04.2006, *Biel* 06.196. Only two plants found.

New for the N Aegean islands.

27. *Heliotropium supinum* L.

Gr Samothraki: W-NW of Chora (Samothraki), road margins and stony pastures, on limestone, 140 m, 40°28'29" N, 25°29'53" E, 29.05.2002, *Biel* 02.067.

New for the N Aegean islands.

28. *Myosotis nemorosa* Besser

Gr Samothraki: NE of Therma, large coastal wetland in alluvial forest, 3 m, 40°29'57" N, 25°37'23" E, 31.05.2002, *Biel* 02.084. One small population.

Brassicaceae

29. *Lunaria annua* subsp. *pachyrhiza* (Borbás) Hayek

Gr Samothraki: southern outskirts of Ano Kariotis, edge of dirt road and olive groves, on basalt or porphyritic substrate, 70 m, 40°29'48" N, 25°34'59" E, 10.05.2001, *Biel* 01.106. Large population of more than 100 plants noted.

Campanulaceae

30. *Campanula rotundifolia* L.

Gr Samothraki: SW of Therma, steep rocky basalt and granitic slope, 1280 m, 40°28'06" N, 25°34'59" E, 01.06.2002, *Biel* 02.151.

New for the N Aegean islands.

31. *Campanula spatulata* Sm. subsp. *spatulata*

Gr Samothraki: NE of Kamariotissa, oak wood with phrygana, coastal limestone slope, 10 m, 40°29'31" N, 25°29'42" E, 10.06.2000, *Biel* 00.035. Another locality was noted near Therma.

32. *Legousia hybrida* (L.) Delarbre

Gr Samothraki: W-NW of Chora (Samothraki), road margins and stony pastures, on limestone, 140 m, 40°28'29" N, 25°29'53" E, 29.05.2002, *Biel* 02.063.

New for the N Aegean islands.

Caprifoliaceae

33. *Sambucus nigra* L.

Gr Samothraki: E-SE of Therma, large coastal wetland

in alluvial forest, 2 m, 40°29'34" N, 25°38'48" E, 31.05.2002, *Biel* 02.094. A few bushes were found beneath *Alnus glutinosa*.

Caryophyllaceae

34. *Scleranthus verticillatus* Tausch

Gr Samothraki: W-NW of Chora (Samothraki), road margins and stony pastures, on limestone, 140 m, 40°28'29" N, 25°29'53" E, 29.05.2002, *Biel* 02.070. Another locality was noted near Therma.

35. *Silene remotiflora* Vis.

Gr Samothraki: E-NE of Kamariotissa, edge of dirt road, on marl and limestone, 30 m, 40°28'53" N, 25°28'54" E, 11.05.2001, *Biel* 01.109. A small population of c. 20 plants.

New for the N Aegean islands.

36. *Stellaria neglecta* Weihe

Gr Samothraki: eastern outskirts of Profitis Ilias, grassy road verges, on schist and basalt, 380 m, 40°25'50" N, 25°32'49" E, 08.04.2006, *Biel* 06.204.

New for the N Aegean islands.

Ceratophyllaceae

37. *Callitriche hamulata* Kütz. (Syn.: *C. intermedia* Hoffm.)

Gr Samothraki: N-NW of Therma by road junction, seasonal pool in open phrygana, 5 m, 40°30'01" N, 25°36'30" E, 05.04.2006, *Biel* 06.110a.

New for Greece. Probably has avoided detection because often growing together with *C. brutia* (Fig. 1).

38. *Callitriche brutia* Petagna [Syn.: *C. intermedia* subsp. *pedunculata* (DC.) Clapham]

Gr Samothraki: N-NW of Therma by road junction, seasonal pool in open phrygana, 5 m, 40°30'01" N, 25°36'30" E, 05.04.2006, *Biel* 06.110b.

A large population growing together with *C. hamulata*, *Chara canescens*, *Ranunculus peltatus* subsp. *saniculifolius* and *Zannichellia palustris* (locality indicated in Fig. 1). Nearest previous records from Ag. Evstratios (NAe) and Lesvos (EAe).

Chenopodiaceae

39. *Polycnemum majus* A. Braun

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, 28.04.2001, *Biel* 01.015.

Crassulaceae

40. *Crassula tillaea* Lest.-Garl.

Gr Samothraki: W-SW of Kamariotissa, at northern

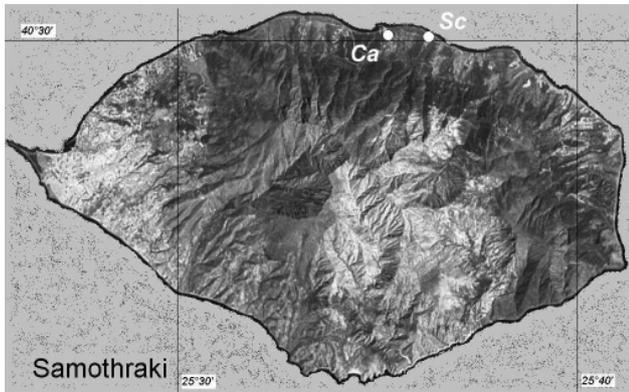


Fig. 1. Distribution map for *Scutellaria hastifolia* (Sc) and *Callitriche brutia* and *C. hamulata* (Ca).

edge of flat coastal lagoon, on sandy ground, 3 m, 40°28'16" N, 25°27'17" E, 09.05.2001, *Biel* 01.042; E of Therma, sandy stream bed in *Pteridium* clearing, 5 m, 40°30'01" N, 25°36'30" E, 31.05.2002, *Biel* 02.090. Other localities were noted near Xiropotamos and Profitis Ilias on the south coast.

Euphorbiaceae

41. *Chamaesyce canescens* (L.) Prokh. subsp. *canescens*

Gr Samothraki: NE of Kamariotissa, heavily grazed fallow field on coastal limestone slope, north of a small stream, 50 m, 40°28'53" N, 25°29'19" E, 06.10.2006, *Biel* 06.590.

Growing together with *Heliotropium europaeum*, *Lactuca saligna*, *Mercurialis annua*, *Polygonum aviculare*, *Xanthium spinosum*, etc. *Ch. canescens* subsp. *massiliense* is known from Samothraki, but this is the first published report of *Ch. c.* subsp. *canescens*.

42. *Chamaesyce prostrata* (Aiton) Small

Gr Samothraki: c. 5 km S-SE of Ano Meria, gravelly beach near Cape Kipos, on basalt and porphyritic substrate, 3 m, 40°25'19" N, 25°41'21" E, 04.10.2006, *Biel* 06.511.

Plants were scattered just above the spray zone, growing together with *Convolvulus althaeoides*, *Tribulus terrestris*, *Verbascum pinnatifidum* and *V. sinuatum*. The spring flora included *Malcolmia chia*, *Rumex scutatus*, *Tordylium apulum*, *Trifolium uniflorum* and *Filago pyramidata*.

Another locality was noted on a gravelly flood plain near Xiropotamos. New for the N Aegean islands.

43. *Euphorbia platyphyllos* L.

Gr Samothraki: S of Kamariotissa, seasonally wet

fallow field with reed zone, on basaltic loam, 5 m, 40°27'57" N, 25°27'24" E, 29.05.2002, *Biel* 02.057.

New for the N Aegean islands.

Fabaceae

44. *Lotus tenuis* Waldst. & Kit.

Gr Samothraki: S of Kamariotissa, seasonally wet fallow field with reed zone, on basaltic loam, 5 m, 40°27'57" N, 25°27'24" E, 29.05.2002, *Biel* 02.055.

45. *Ononis reclinata* L.

Gr Samothraki: SW of Kamariotissa, *Thymus phrygana* slope above road, coastal limestone and gravel, 10 m, 40°27'57" N, 25°27'24" E, 28.04.2001, *Biel* 01.007.

Geraniaceae

46. *Erodium malacoides* (L.) L'Hér.

Gr Samothraki: SW of Kamariotissa, *Thymus-Sarcopoterium phrygana* on coastal limestone slope, 10 m, 40°27'57" N, 25°27'24" E, 28.04.2001, *Biel* 01.006; SW of Lakkoma, phrygana slope with olive trees, on basalt and porphyritic substrate, 20 m, 40°25'24" N, 25°31'05" E, 10.05.2001, *Biel* 01.098; S-SW of Alonia, road margins with shrubs, on basaltic loam, 5 m, 40°26'11" N, 25°29'46" E, 29.05.2002, *Biel* 02.049.

New for the N Aegean islands.

47. *Geranium macrostylum* Boiss.

Gr Samothraki: SW of Kamariotissa, grassy edge of coastal lagoon, on loam and gravel, 4 m, 40°27'38" N, 25°27'35" E, 12.04.2006, *Biel* 06.036. Another population was noted at the edge of a dirt road between fields c. 2 km E-SE.

Lamiaceae

48. *Coridothymus capitatus* L.

Gr Samothraki: SW of Kamariotissa, edge of fallow field below phrygana slope, coastal limestone, 10 m, 40°28'09" N, 25°27'33" E, 11.06.2000, *Biel* 00.083. Also noted near Ano Meria, Chora, Profitis Ilias and Therma. A species of widespread occurrence elsewhere in the Aegean region but on Samothraki, with only one large population occupying c. 1 ha on the peninsula of Ag. Andreas; on the rest of the island existing in only a few small populations.

49. *Lamium purpureum* L.

Gr Samothraki: E of Therma, grassy verges of footpath



Fig. 2. *Scutellaria hastifolia*. Photo: B. Biel.

in garden, on basaltic loam, 20 m, 40°29'36" N, 25°36'31" E, 16.04.2006, *Biel* 06.389.

50. *Prunella laciniata* (L.) L.

Gr Samothraki: two sites were noted near Alonia and Therma (field note, *Biel* obs.).

51. *Scutellaria hastifolia* L. (Fig. 2).

Gr Samothraki: NE of Therma, large coastal wetland in alluvial forest, 3 m, 40°29'57" N, 25°37'23" E, 31.05.2002, *Biel* 02.082 (locality indicated in Fig. 1). A small population was discovered in a reed bed at the southern edge of a seasonally inundated lagoon, enclosed by a larger population of *Gratiola officinalis* (see Fig. 2), and accompanying species such as *Alisma plantago-aquatica*, *Alnus glutinosa*, *Aristolochia rotunda*, *Callitriche palustris*, *Carex distans*, *C. divisa*, *C. flacca*, *Cyperus esculentus*, *C. longus* subsp. *badius*, *Dittrichia viscosa*, *Elatine alsinastrum*, *Erica arborea*, *Erophila verna*, *Fallopia convolvulus*, *Hedera helix*, *Hypnum cupressiforme*, *Juncus acutus*, *J. effusus*, *J. gerardii*, *Leucojum aestivum*, *Lycopus europaeus*, ***Lythrum borysthenticum***, ***Myosotis nemorosa***, *Myrtus communis*, ***Oenanthe fistulosa***, *O. silaifolia*, *Ophioglossum vulgatum*, *Orchis laxiflora*, *Persicaria maculosa*, *Platanus orientalis*, *Potentilla reptans*, *Pteridium aquilinum*,

Ranunculus ophioglossifolius, *R. peltatus* subsp. *saniculifolius*, *Scrophularia peregrina*, *Smilax excelsa*, *Trifolium pratense*, *T. repens*, *Urtica dioica*, *Vitis vinifera* var. *sylvestris*.

The taxa indicated in bold are additions to the flora of Samothraki and included in this paper. The record of *Gratiola officinalis* L. confirms an earlier record by Katsikopoulos (1936: 10) which was considered an out-of-range distribution.

Lythraceae

52. ***Lythrum borysthenticum*** (Schrank) Litv.

Gr Samothraki: NE of Therma, large coastal wetland in alluvial forest, 3 m, 40°29'57" N, 25°37'23" E, 31.05.2002, *Biel* 02.112.

Malvaceae

53. ***Malva cretica*** Cav.

Gr Samothraki: SW of Alonia, edge of stream valley near road, on basaltic loam, 40 m, 40°26'26" N, 25°30'06" E, 10.05.2001, *Biel* 01.096.

Papaveraceae

54. ***Papaver argemone*** subsp. ***nigrotinctum*** (Fedde) Kadereit

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, 07.04.2006, *Biel* 06.198.

Polygonaceae

55. ***Polygonum maritimum*** L.

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, 09.05.2001, *Biel* 01.094.

Rhamnaceae

56. ***Rhamnus alaternus*** L.

Gr Samothraki: W-SW of Profitis Ilias, oak scrub in ravine with dry streambed, on basalt, 90 m, 40°25'07" N, 25°32'41" E, 29.05.2002, *Biel* 02.046. Also noted near Therma.

Rubiaceae

57. ***Rubia tinctorum*** L.

Gr Samothraki: Two sites were noted near Kamariotissa, at the edge of a dirt road and in a dry ditch (field note, *Biel* obs.).

Salicaceae

58. ***Populus alba*** L.

Gr Samothraki: N of Therma, brackish coastal wetland with shrubs, 2 m, 40°30'12" N, 25°36'30" E,

02.06.2002, *Biel* 02.106. A number of trees varying in size and age were found in coastal *Platanus* forest. Not planted.

Saxifragaceae

59. *Saxifraga tridactylites* L.

Gr Samothraki: SW of Xiropotamos, gravelly river bed with shrubs, 20 m, 40°25'46" N, 25°30'45" E, 11.04.2006, *Biel* 06.282. Another locality was noted near Chora.

Scrophulariaceae

60. *Cymbalaria muralis* P. Gaertn. & al.

Gr Samothraki: stonewall along path by church in Kamariotissa, 15 m, 40°28'45" N, 25°28'32" E, 26.05.2002, *Biel* 02.113.

61. *Verbascum pinnatifidum* Vahl

Gr Samothraki: southwestern outskirts of Kamariotissa, road margins and fallow land in harbour area, 3 m, 40°28'40" N, 25°28'20" E, 24.10.2002, *Biel* 02.140.

62. *Veronica agrestis* L.

Gr Samothraki: SW of Xiropotamos, gravelly river bed with shrubs, 20 m, 40°25'46" N, 25°30'45" E, 07.04.2006, *Biel* 06.015. Another locality was noted near Kamariotissa.

63. *Veronica persica* Poir.

Gr Samothraki: eastern outskirts of Profitis Ilias, grassy road verges, on schist and basalt, 380 m, 40°25'50" N, 25°32'49" E, 08.04.2006, *Biel* 06.205.

Violaceae

64. *Viola riviniana* Rchb.

Gr Samothraki: E-SE of Alonia, rocky *Juniperus* slope, on basalt and porphyritic substrate, 510 m, 40°27'25" N, 25°32'30" E, 03.04.2006, *Biel* 06.096; N-NW of Therma, open *Erica* scrub above road, on basaltic gravel, 10 m, 40°30'02" N, 25°36'04" E, 05.04.2006, *Biel* 06.157; SW of Therma, *Juniperus* and *Quercus* slope on narrow ridge of basalt and granite, 800 m, 40°27'56" N, 25°35'15" E, 06.04.2006, *Biel* 06.395; also noted near Ano Meria.

Iridaceae

65. *Crocus cancellatus* Herb.

Gr Samothraki: SW of Kamariotissa, *Thymus-Sarcopoterium* phrygana on coastal limestone slope, 10 m, 40°27'57" N, 25°27'24" E, 24.10.2002, *Biel* 02.141. Two other sites with similar habitat were noted near Alonia.

66. *Romulea ramiflora* Ten.

Gr Samothraki: SW of Kamariotissa, at western edge of flat coastal lagoon, on loam and gravel, 4 m, 40°27'38" N, 25°27'35" E, 02.04.2006, *Biel* 06.031.

A small population of c. 10 plants found.

New for the N Aegean islands.

Liliaceae

67. *Muscari commutatum* Guss.

Gr Samothraki: SW of Kamariotissa, *Thymus-Sarcopoterium* phrygana on coastal limestone slope, 10 m, 40°27'57" N, 25°27'24" E, 02.04.2006, *Biel* 06.016. Two other populations were noted in the same area.

68. *Muscari neglectum* Guss.

Gr Samothraki: E of Kamariotissa, phrygana with olive trees, coastal limestone slope, 30 m, 40°28'53" N, 25°29'00" E, 02.04.2006, *Biel* 06.041. Sixteen other sites were noted including those at Ano Meria, Alonia, Chora, Pachia Ammos, Profitis Ilias, Therma and Xiropotamos.

Poaceae

69. *Phleum alpinum* L.

Gr Samothraki: Mt Fengari, S of Therma, exposed mountain ridge, granite and basalt, 1600 m, 40°27'40" N, 25°35'18" E, 15.04.2006, *Biel* 06.378. An "alpine" flora exists on the crest of Saos (at 1400-1624 m) with *Astragalus thracicus* subsp. *parnassii*, *Corydalis solida* subsp. *incisa*, *Crocus chrysanthus*, *Poa bulbosa*, *P. glauca*, *Polytrichum piliferum*, *Prunus prostrata*, *Scilla autumnalis*, *Viola samothracica* and *Symphyandra samothracica* all growing under severe climatic conditions. *Phleum alpinum* occurred near snow patches.

70. *Vulpia muralis* (Kunth) Nees

Gr Samothraki: W-SW and E of Therma, heavily grazed *Erica-Arbutus* scrub along footpath to Fengari, on granite and schist, 250 m, 40°29'29" N, 25°35'25" E, 30.05.2002, *Biel* 02.075.

All cited vouchers are kept in the private herbarium of B. Biel at Höchberg (herb. Biel).

Reports 71–85

Iulian Costache

Biology Department, Horticulture Faculty, University of Craiova, 15 Libertății St., 200583 Craiova, Romania,
e-mail: iuliuscostache@yahoo.com

These reports deal with some Balkan species in the Inferior Basin of River Motru in Romania. The studied area is 691 km² and lies in the western part of the Getic Piedmont, with the coordinates: 44.96° N and 23.44° E. The physico-geographical position and the pedological and climatic characteristics of the studied territory favor the occurrence of numerous species of Balkan and sub-Mediterranean origin.

Eurasian (370 species) and Central European (143 species) geoelements predominate in the studied flora, whereas the Balkan ones are fewer (40 species). Despite these figures, it is worth mentioning the abundance of the individuals of some species, such as: *Helleborus odorus*, *Fagus sylvatica* subsp. *moesiaca* and *Quercus frainetto* which, along with some species of sub-Mediterranean origin (*Quercus cerris*, *Q. robur*, *Q. dalechampii* etc.), form plant associations that render a special characteristic to the flora and vegetation in the southwestern part of Romania.

A significant number of Balkan species is included in the Red List of Romania (*Ranunculus constantinopolitanus*, *Digitalis ferruginea*, *Acanthus balcanicus*, *Thymus callieri*, etc.).

Acanthaceae**71. *Acanthus balcanicus*** Heywood & I. Richardson

Ro Oltenia, **MH:** between Strehaiia (Stăncești), FQ-84, Butoiești and Arginești, FQ-93, at the margins of a *Quercus cerris* and *Q. frainetto* forest, 250-280 m, 09.07.2003, coll. *I. Costache* (CRA 18706).

This species is rare in the Inferior Basin of River Motru. The populations are represented by sporadic individuals, exposed to zoo-antropogenous influences (Costache 2004b, 2005a, b). The taxon is also known in the southwestern part of the country (Paucă 1961).

Asteraceae**72. *Cirsium candelabrum*** Griseb.

Ro Oltenia, **MH:** Comănești (The Valea Mare Valley), 280-300 m, FQ-47, 09.07.2000, coll. *I. Costache* (CRA 18789).

The species is also known from SW Romania (Nyárády 1964; Maloș 1977).

Campanulaceae**73. *Campanula glomerata*** subsp. *hispida* (Witašek) Hayek

Ro Oltenia, **GJ:** Glogova, FQ-57, Cătunele, Motru, Văgiulești; **MH:** between Comănești and Câmpu Mare, in mesophile meadows, FQ-47, 09.07.2003, coll. *I. Costache* (CRA 18710).

The species is also known in the southeastern part of the country (Csűrös 1964)

74. *Campanula grossekii* Heuff.

Ro Oltenia, **MH:** Bala (Comănești, the inter-river Crainici), 280-300 m, FQ-47, 10.07.2004, coll. *I. Costache* (CRA 18711).

This species is also known from the southwestern part of the country (Ghișa 1964).

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

Ro Oltenia, **GJ:** Glogova (Cămuiești), FQ-57, 280 m; **MH:** Bala (Comănești, the inter-river Crainici), in mesophile meadows, 280-300 m, FQ-47, 09.07.2000, coll. *I. Costache* (CRA 18716).

This species is also known from the southwestern part of the country (Gușuleac 1964).

Corylaceae**76. *Corylus colurna*** L.

Ro Oltenia, **GJ:** Negoști, FQ-48; Glogova, FQ-57, 280 m; **MH:** Comănești, at the margins of an evergreen oak forest and in moesic beech forests, 380 m, FQ-47, 17.04.2004, coll. *I. Costache* (CRA 18152).

The species is also known from the southwestern part of the country (Georgescu 1952; Beldie 1977; Ciocârlan 2000; Maloș 1972, 1977).

Euphorbiaceae**77. *Euphorbia jacquinii*** Fenzl ex Boiss.

Ro Oltenia, **GJ:** Glogova, at the margins of an evergreen oak forest, 350-380 m, FQ-57, 04.06.2000;

MH: Arginești, at the margins of *Quercus cerris* and *Q. frainetto* forest, 250-280 m, FQ-93, 02.10.1999, coll. *I. Costache* (CRA 18392).

The species is also known from the central and southwestern parts of the country (Vicol 1963). In Oltenia, in the region of Broșteni, Strehaia-Ciochiuța (**MH**), the species has been misidentified for *E. linguata* Heuff. (coll. *Prodan & al.* 1954, CRA); Baia de Arama (Maloș 1977), see also *Costache* (2004a, 2005a, b).

Fagaceae

78. *Fagus sylvatica* subsp. *moesiaca* (Maly) Hjelmq.

Ro Oltenia, **GJ:** Negoști, FQ-48; Glogova, FQ-57, 280 m, 30.04.2002, coll. *I. Costache* (CRA 18142b); **MH:** Strehaia-Cerângani (the Cerângani Valley), 200-350 m, FQ-84; Arginești-Gura Motrului, FQ-93; Buicești, FQ-83, 200-250 m, 17.04.2004.

The taxon is also known from the southwestern part of the country (Beldie 1952).

79. *Quercus frainetto* Ten.

Ro Oltenia, **MH:** Strehaia-Cerângani, 200-250 m, FQ-84, Slătincul Mic, Miluța, Stângăceaua, FQ-74, Gura Motrului, FQ-93, 200-250 m, 08.06.2003, coll. *I. Costache* (CRA 18145).

The species is widely known in the region of Gura Motrului and is mentioned for many localities in the southern part of the country (Beldie 1952; Popescu 1988).

Fumariaceae

80. *Corydalis solida* subsp. *slivenensis* (Velen.) Hayek

Ro Oltenia, **GJ:** Glogova, 280 m, FQ-57, 17.03.2001; **MH:** Negoști, FQ-48; Comănești, FQ-47, in moesic beech forests and hornbeam groves, 380 m; Strehaia (interfluviul Hușnița), FQ-84; the river Banu meadow, in *Quercus robur* forest, 130-150 m, FQ-74, 18.03.2001, coll. *I. Costache* (CRA 18129b).

The species is rare in the Inferior Basin of River Motru (*Costache* 2000, 2005a, b) and is widely known in the region of Timișoara, Galați, Constanța and Iași (Nyárady 1955).

Lamiaceae

81. *Thymus callieri* Borbás ex Velen.

Ro Oltenia, **MH:** Breznița de Motru, FQ-73 (the Priporu and Gliganu Hills); between Stângăceaua,

FQ-74 and Arginești, FQ-93, in xeromesophile meadows, 130-150 m, 19.06.2003, coll. *I. Costache* (CRA 18653).

The species is widely known in the region of Constanța (Gușuleac 1961).

Scrophulariaceae

82. *Digitalis ferruginea* L.

Ro Oltenia, **MH:** between Corcova and Stângăceaua, at the margins of a Turkey oak (*Quercus cerris*) and Hungarian oak forest (*Q. frainetto*), 130-150 m, FQ-74, 09.07.2003, coll. *I. Costache* (CRA 18666).

The species is widely known in the region of Strehaia (Prisăceanca forest) and in the southwestern part of the country (Grințescu 1960), and is mentioned as rare in the Superior Basin of River Motru (Maloș 1977).

Ranunculaceae

83. *Helleborus odorus* Waldst. & Kit.

Ro Oltenia, **GJ:** Glogova, 280 m, FQ-57, 17.03.2001; **MH:** Strehaia-Cerângani (The Cerângani Valley), 200-250 m, FQ-84; the river Banu meadow, 130-150 m, FQ-74; Buicești, FQ-83; Arginești-Gura Motrului, 200-250 m, FQ-93, 18.03.2001, coll. *I. Costache* (CRA 18104).

The species is also known from the southern part of the country (Nyárady 1953).

84. *Ranunculus constantinopolitanus* (DC.) d'Urv.

Ro Oltenia, **MH:** Corcova (in lunca Coșuștei), the river Banu meadow, 130-150 m, FQ-74; Breznița (Gliganu Hill), Arginești-Gura Motrului, in *Quercus robur* forests and hornbeam groves, 110-120 m, FQ-93, 30.04.2000, coll. *I. Costache* (CRA 18112).

The species is widely known from the region of Craiova, Caracal, Bucharest, and Galați (Nyárady 1953).

Iridaceae

85. *Crocus flavus* Weston

Ro Oltenia, **MH:** Arginești, in xeromesophile meadows, at the margins of a Turkey oak (*Quercus cerris*) and Hungarian oak forest (*Q. frainetto*), 200-250 m, FQ-93, 22.03.2003, coll. *I. Costache* (CRA 18916).

The species is also known from SW and SE Romania (*Prodan & Nyárady* 1966).

Reports 86–97

Iulian Costache

Biology Department, Horticulture Faculty, University of Craiova, 15 Libertății Street, 200583 Craiova, Romania,
e-mail: iuliuscostache@yahoo.com

The paper presents new chorological data for 12 taxa for the Inferior Basin of River Motru. The taxa were recorded as isolated specimens in few localities within the studied area, part of them being listed in the Red List of Romania.

Caryophyllaceae

86. *Kohlruschia saxifraga* (L.) Dandy

Ro Oltenia, **MH:** Bala (Comănești, inter-rivers: Călugărița, Pestrița, Valea Mare, Crainici), in the grove edges, 380 m, FQ-47, 13.06.2003, coll. *I. Costache* (CRA 18171).

The species is wide known in the region of Drobeta-Turnu Severin (Prodan 1953) and mentioned among the rare species in the Superior Basin of River Motru (Maloș 1977).

Crassulaceae

87. *Sedum cepaea* L.

Ro Oltenia, **MH:** Bala (Comănești, the inter-river Pestrița, Călugărița, Valea Mare), Crainici (the inter-river Crainici), FQ-47; **GJ:** Negoști, FQ-48; Glogova, FQ-57, on rocky ground, loosely fixed, 280-300 m, 08.09.2002, coll. *I. Costache* (CRA 18240).

The species is also known for the southeastern part of the country and in Vâlcea county – Cozia Monastery (Răvăruț 1956).

88. *Sedum rubens* L.

Ro Oltenia, **MH:** Bala (Comănești, the inter-river Pestrița, Călugărița, Valea Mare), Crainici (the inter-river Crainici), on rocky ground, loosely fixed, 350-380 m, FQ-47, 08.07.2002, coll. *I. Costache* (CRA 18242).

The species is also known for the southwestern part of the country (Răvăruț 1956).

Fabaceae

89. *Lathyrus sphaericus* Retz.

Ro Oltenia, **MH:** Arginești-Gura Motrului, FQ-93; Buicești FQ-83, in xeromesophile meadows, 115-200 m, 06.06.2001, coll. *I. Costache* (CRA 18319).

The species is also known for the central and southeastern part of the country (Grințescu & Nyárady 1957).

90. *Medicago arabica* (L.) Huds.

Ro Oltenia, **MH:** Comanda-Corcova, FQ-74; Breznița de Motru, FQ-73, in the river meadow of Breznița, 130-150 m, 08.04.2003; Gura Motrului, in wet areas, 130 m, FQ-93, 30.04.2001, coll. *I. Costache* (CRA 18326).

The species is also known for the inferior basin of River Motru: **MH** – Butoiești (Buia 1959; Costache 2004b), and in Dolj county – Cerātu (Segarcea), Craiova (in the Jiu river meadow) (Morariu 1957; Păun 1966).

Orchidaceae

91. *Dactylorhiza incarnata* (L.) Soó

Ro Oltenia, **MH:** Comănești, 300-350 m, FQ-47; Strehăia-Cerângani (The Cerângani Valley), FQ-84; the river Banu meadow, in moor areas, 130-200 m, FQ-74, 10.06.2001, coll. *I. Costache* (CRA 18921).

The species was also found in the inferior basin of River Motru, **MH:** Arginești-Gura Motrului (Costache 2004b). Although it occurs in many places in the country (Paucă & Beldie 1972), it is seldom mentioned (Beldie 1979; Oltean & al. 1994; Sârbu & al. 2003).

92. *Epipactis atrorubens* (Hoffm.) Besser

Ro Oltenia, **GJ:** Glogova, FQ-57; **MH:** Comănești, at grove edges, 300-350 m, FQ-47, 04.06.2000; Strehăia-Cerângani (the Cerângani Hills), in moesic beech forests and hornbeam groves, 300-330 m, FQ-84, 09.07.2003, coll. *I. Costache* (CRA 18923).

In spite of the fact that the species is mentioned from many localities in the country (Paucă & Morariu 1972), it is rare in the Inferior Basin of River Motru, where the populations are represented by sporadic individuals, exposed to zoo-antropogenous impact.

93. *Epipactis viridiflora* Hoffm. ex Krock

Ro Oltenia, **MH:** Comănești, FQ-47; **GJ:** Negoști, FQ-48; Glogova, FQ-57, in moesic beech forests, 300-350 m, 30.05.2004, coll. *I. Costache* (CRA 18925).

The species is sporadically mentioned on national level (Paucă & Morariu 1972; Beldie 1979; Ciocârlan 2000), it is rare in the Inferior Basin of River Motru (Costache 2005a, b). It is known for Oltenia, in **MH:** Baia de Arama (Maloș 1977), Gura Motrului; **GJ:** Tismana (Paucă & Morariu 1972).

94. *Ophrys apifera* Huds.

Ro Oltenia, **MH:** Bala (Comănești, on the Pietricica

Hill), at grove edges, 350 m, FQ-47, 13.06.2003, coll. *I. Costache* (CRA 18929).

The species is also known from the central, south-western and southern part of the country (Nyárády & Beldie 1972). It is new to Oltenia (Costache 2005b).

95. *Orchis coriophora* subsp. *fragrans* (Pollini) Sudre
Ro Oltenia, **GJ:** Glogova, FQ-57; Steic, FQ-56; **MH:** Comănești (the Pietricica-Pirloage Hill), in mesophile meadows, 250-350 m, FQ-47, coll. *I. Costache* (CRA 18930).

The species is also known from the southern, south-western and south-eastern part of the country (Nyárády & Beldie 1972).

96. *Orchis laxiflora* subsp. *elegans* (Heuff.) Soó
Ro Oltenia, **MH:** Comănești (the peak of Motru

Hill), 300 m, FQ-47; Buicești (the Viilor Hill), in moor meadows, 250 m, FQ-83, 20.06.2003, coll. *I. Costache* (CRA 18931).

In spite of the fact that the species is mentioned from many localities in the country (Nyárády & Beldie 1972), it is rare in the Inferior Basin of River Motru. The populations are represented by sporadic individuals, exposed to zoo-antropogenous impact.

97. *Orchis papilionacea* L.

Ro Oltenia, **MH:** Comănești (the Pietricica-Pirloage Hill) – in mesophile meadows, 350 m, FQ-47, 30.05.2004, coll. *I. Costache* (CRA 18933).

The species is also mentioned in the Superior Basin of River Motru: **MH:** Baia de Aramă (Maloș 1977). It is known from the central and southwestern part of the country too (Nyárády & Beldie 1972).

Reports 98–108

Gheorghe Dihoru¹ & Daniel Răduțoiu²

¹ Institute of Biology, Romanian Academy, Splaiul Independentei 296, 060031 Bucharest VI, Romania

² Biology Department, University of Craiova, 15 Libertatii St., 200583 Craiova, Romania, e-mail: radutoiodaniel@yahoo.com

This paper presents new chorological data of some rare taxa, partially included in the national Red Lists, identified in the Basin of Cerna of Oltet in the region of Oltenia – Romania.

Salviniaceae

98. *Salvinia natans* (L.) All.

Ro Oltenia, **VL:** Giulesti, GQ-35, R., in still waters, 28.07.2005, coll. *D. Răduțoiu* (CRA 18089).

The species is sporadically found in almost all regions of the country: Oltenia, Transylvania, Banat, Muntenia, Dobrogea, and Moldova.

Apiaceae

99. *Angelica archangelica* L.

Ro Oltenia, **VL:** Recea, GR-20, Buciumu, Zavidanu peaks, GR-22, moor meadows, on riverbanks, bushes, riverside coppice, 12.07.2002, 02.08.2005, coll. *D. Răduțoiu* (CRA 19102).

The species was also found in Transylvania, Banat, Muntenia and Moldova.

100. *Athamanta turbith* subsp. *hungarica* (Borbás) Tutin

Ro Oltenia, **VL:** Cerna, GR-20, Zavidanu and Stani-soara peaks, GR-22, sporadically on sunny rocks, saxicolous and calcicolous, 29.07.2005, coll. *D. Răduțoiu* (CRA 19103).

The species is also mentioned in Muntenia, Oltenia and Banat.

Asteraceae

101. *Ligularia sibirica* (L.) Cass.

Ro Oltenia, **VL:** Marita, GR-20, along the mountainous valleys, 29.07.2005, coll. *D. Răduțoiu* (CRA 19106).

The species is also found in Transylvania, Muntenia, Moldova, and Oltenia.

Brassicaceae

102. *Peltaria alliacea* Jacq.

Ro Oltenia, **VL:** Cerna, Plaiul Cernei Hill, GR-20, Buciumu, Zavidanu & Corsoru peaks, GR-22, sporadically in bushes, at forest edges, valleys, 07.09.2001, 13.07.2002, coll. *D. Răduțoiu* (CRA 18521).

The species is also found occasionally in Transylvania, Banat, Oltenia, and Muntenia.

Dispacaceae

103. *Succisa pratensis* Moench

Ro Oltenia, **VL:** Rugetu, GR-20, R., meadows, ± wet bushes, 12.07.2002, 28.07.2005, coll. *D. Răduțoiu* (CRA 19107).

The species is also found in Transylvania, Banat, Muntenia, and Moldova.

Oleaceae

104. *Fraxinus pallisiae* Wilmott

Ro Oltenia, **VL:** Stroesti, GQ-29/39, R., river Cerna meadow, 12.06.2005, coll. *D. Răduțoiu* (CRA 18402)

The species is also found in Oltenia, Muntenia, Dobrogea, and Moldova.

Scrophulariaceae

105. *Digitalis ferruginea* L.

Ro Oltenia, **VL:** Giulesti, GQ-35, R., in glades and forest edges, 15.09.2005, coll. *D. Răduțoiu* (CRA 18666).

The species is also found in Oltenia, Banat and Muntenia.

Liliaceae

106. *Erythronium dens-canis* subsp. *niveum* (Baumg.) Buia & Păun

Ro Oltenia, **VL:** Pietroasa, GQ-34; Giulesti, GQ-

35; Botorani, KK-65; Fartatesti, GQ-36; Nisipi, KK-65; Popesti, GQ-35/36; Ciocanari, KK-65; Oveselu, KK-65/66; Maciucă, KK-65/66; Ladesti, KK-67; Copaceni, GQ-34, in forest glades, meadows, 01.04.2003, 06.04.2005, 13.04.2005, coll. *D. Răduțoiu* (CRA 18891).

The species is also found in other localities, besides in Oltenia.

Orchidaceae

107. *Epipactis palustris* (L.) Crantz

Ro Oltenia, **VL:** Rugetu, GR-20, forest glades, meadows, 09.07.2005, coll. *D. Răduțoiu* (CRA 19105).

The species is also found in Oltenia, Transylvania, Banat, Muntenia, Moldova, and Dobrogea.

Poaceae

108. *Bromus scoparius* L.

Ro Oltenia, **VL:** Otetelis, GQ-34, rare, sunny places in countryside lanes, 13.05.2005, coll. *D. Răduțoiu* (CRA 19104).

The species is also found in Oltenia and Dobrogea.

Reports 109–116

Antoaneta S. Petrova¹ & Rossen Vassilev²

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

² Bulgarian Biodiversity Foundation, 73 Sredna Gora St., 1000 Sofia, Bulgaria, e-mail: rossen.vassilev@biodiversity.bg

Apiaceae

109. *Oenanthe lachenalii* C.C. Gmel.

Bu Rhodopi Mts (*Central*): Wet meadows in Turna Chair locality, to southwest of Baroutin village, Dospat region, KG-60, 41°33.200'N, 24°11.686'E, 04.08.2006, coll. *A. Petrova* & *R. Vassilev* (SOM 163185).

This species with Mediterranean-Atlantic distribution is locally known, mainly in South Bulgaria, and is included in the *Red Data Book* (Evstatieva 1984). This is the first record for Rhodopi Mts (*Central*). The observed population consists of about 300-350 flowering plants in an area of about 0.5 ha.

Fabaceae

110. *Anthylis vulneraria* subsp. *polyphylla* (DC.) Nyman

Bu Rhodopi Mts (*Central*): a stony slope above the road from Luki town to Yugovo village, Plovdiv district, LG-13, 41°51'35" N, 24°49'20" E, 15.05.2005, with flowers, coll. *A. Petrova* (SOM 163057).

Anthylis vulneraria is a very variable species, of which *A. v.* subsp. *polyphylla* is new for the region.

111. *Lotononis genistoides* (Fenzl) Benth.

Bu Rhodopi Mts (*Eastern*): a stony limestone area above Likana locality (under the power transmission line), south of Svirachi village, along the road to Mandritsa village, Ivailovgrad region, MF-29, 41°27'08" N, 26°07'50" E, 20.05.2005, with flowers, coll. *A. Petrova* (SOM 163178).

This Mediterranean species is extremely rare in Bulgaria. It was collected in the Rhodopi Mts (*Eastern*), near Belopolyane village in 1924 (Stojanov & Stefanov, SOA 5632 & 5634) and 1964 (Yordanov & Krusheva, SO 86215 & 91877).

The population was observed on an area of about 1-1.5 dka in the most open, stony and dry places of the ridge, with a very sparse plant cover and, considering its density, the extrapolated number is about 600-700 individuals. Plants are completely prostrate, almost all generative, with prevalence of large, older individuals.

Guttiferae**112. *Hypericum hirsutum* L.**

Bu Rhodopi Mts (*Central*): rocky places in Bouinovsko gorge, near Haidoushki Dol locality, Devin region, KG-70, 05.08.2006, with fruits, coll. A. Petrova & R. Vassilev (SOM 163176); Dobrostan massif, meadow along the tourist path from Martsiganitsa chalet to Bezovo chalet, LG-24, 17.08.2006, coll. A. Petrova (SOM 163197).

A species with local distribution in the country, not registered for this part of the Rhodopes in the general literature sources.

Ranunculaceae**113. *Ranunculus fontanus* C. Presl**

Bu Rhodopi Mts (*Central*): fen along the forest road from Kosovo village to Byala Cherkva locality, Plovdiv district, LG-04, 19.07.1996, with flowers, coll. A. Petrova (SOM 163185); near Rechani village, Smolyan district, a small spring along the path to the sources of river Arda, LF-09, 18.06.2006, with flowers and fruits, coll. A. Petrova (SOM 163186).

New localities for this rare and locally distributed species in Bulgaria, listed as a rare plant in Appendix I of the Bern Convention. The population in the area of Byala Cherkva consists of individuals dispersed within 500 m², in a meadow-type community. The population near Rechani village numbers some 30 plants on an area of about 5 m². Here *R. fontanus* grows together with *Montia fontana* L. s.l.

Orchidaceae**114. *Epipactis persica* (Soó) Nannf.**

Bu Rhodopi Mts (*Central*): near Borikovo village, Smolyan district, in a *Pinus sylvestris* plantation, LF-09, 41°28.755 N, 24°40.570 E, 07.08.2006, coll. A. Petrova & R. Vassilev (SOM 163169).

A new species for the Rhodopi Mts, known in Bulgaria only from Rila Mts (Siering & Henning 1989).

Poaceae**115. *Agrostis castellana* Boiss. & Reut.**

Bu Rhodopi Mts (*Western*): stony pasture W of Brushten village, Dospat region, KG-50, 04.08.2006, coll. A. Petrova & R. Vassilev (SOM 163153).

This is the first report for Rhodopi Mts (*Western*) of this Euro-Mediterranean species, with a still not well known distribution in Bulgaria, although in some areas – Rhodopi Mts (*Eastern*), Rila and Verila Mts – it is a dominant species in xerophytic pastures.

116. *Sieglingia decumbens* (L.) Bernh.

Bu Rhodopi Mts (*Central*): meadows in Kaurchin locality, near Zhrebevo village, Devin region, KG-81, 41°34.854 N, 24°24.318 E, 04.08.2006, coll. A. Petrova & R. Vassilev (SOM 163190).

This collection confirms the species for the Rhodopi Mts (*Central*). As it was discussed earlier (Petrova 2004), the distribution of this species in Bulgaria was incorrectly reported in some general Floras.

Reports 117–127**Desislava Sopotlieva**

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria,
e-mail: desisop@bio.bas.bg

A detailed sampling of vegetation diversity in the Straldzha – Aitos phytogeographic region during 2003-2005 revealed 11 plant taxa as new for the studied region, as listed below:

Caryophyllaceae**117. *Dianthus pallens* Sm.**

Bu Toundzha Hilly Country: dry grasslands E of Venets village, Bourgas district, 199 m, 42.64110° N, 26.84054° E, 29.06.2005, coll. D. Sopotlieva (SOM 162974); E of Devetintsi village, Bourgas district, 165 m, 42.59531° N, 26.83205° E, 23.06.2005, coll. D. Sopotlieva (SOM 162973); S of Vodenichane village, Yambol district, 161 m, 42.53231° N, 26.69298° E, 02.07.2005, coll. D.

Sopotlieva (SOM 162972); E of Karnobat town, 265 m, 42.64609° N, 27.02644° E, 13.07.2005, coll. D. Sopotlieva (SOM 162970); N of Karanovo village, Bourgas district, 232 m, 42.65030° N, 27.18485° E, 11.07.2005, coll. D. Sopotlieva (SOM 162967); W of Detelina village, Bourgas district, 162 m, 42.56438° N, 27.02272° E, 11.07.2005, coll. D. Sopotlieva (SOM 162968); E of Zlatari village, Yambol district, 268 m, 42.38478° N, 26.23153° E, 29.06.2004, coll. D.

Sopotlieva (SOM 162935); dry grasslands on Idemir hill, NW of Kermen town, Sliven district, 155 m, 42.51616° N, 26.24355° E, 16.07.2004, coll. D. *Sopotlieva* (SOM 162969); on Golemiya Bair, Malkiya Bair and Gyume Bair hills, NE of Bozadzhi village, Sliven district, 210 m, 42.48268° N, 26.33966° E, 16.07.2004, coll. D. *Sopotlieva* (SOM 162971); S of Konyovo village, Sliven district, 148 m, 42.51088° N, 26.16263° E, 19.07.2004, coll. D. *Sopotlieva* (SOM 162966).

Although widespread throughout the country, this species has not been recorded so far for the Toundzha Hilly Country (Assyov & Petrova 2006: 149).

118. *Scleranthus polycarpus* L.

Bu Toundzha Hilly Country: grasslands SW of Lyubenova Mahala village, Sliven district, along river Blatnitsa, 133 m, 42.3344° N, 25.95512° E, 14.06.2004, coll. D. *Sopotlieva* (SOM 162955); E of Zhelyu Voivoda village, 140 m, 42.57834° N, 26.51544° E, 15.06.2004, coll. D. *Sopotlieva* (SOM 162954); along river Toundzha, between the villages of Samouilovo and Mechkarevo, Sliven district, 154 m, 42.58084° N, 26.31361° E, 09.06.2004, coll. D. *Sopotlieva* (SOM 162953); W of Rechitsa, Sliven town, 159 m, 42.62132° N, 26.25974° E, 03.06.2004, coll. D. *Sopotlieva* (SOM 162952); S of Dragodanovo village, Sliven district, 147 m, 42.61809° N, 26.56938° E, 06.06.2004, coll. D. *Sopotlieva* (SOM 162951); dry grasslands NW of Korten village, Sliven district, 230 m, MH-11, 04.06.2003, coll. D. *Sopotlieva* (SOM 162950); S of Bezmer village to Bolyarsko village, Yambol district, 160 m, 42.45087° N, 26.38764° E, 09.06.2004, coll. D. *Sopotlieva* (SOM 162949); S of Vodenichane village, Yambol district, 161 m, 42.53231° N, 26.69298° E, 02.07.2005, coll. D. *Sopotlieva* (SOM 162948); E of Dragantsi village, Bourgas district, 165 m, 42.56876° N, 26.98893° E, 05.07.2005, coll. D. *Sopotlieva* (SOM 162947); on Shoumnatoto Kale hill between the villages of Dragovo and Choukarka, Bourgas district, 384 m, 42.64497° N, 27.10033° E, 13.07.2005, coll. D. *Sopotlieva* (SOM 162946); N of Sokol village, Sliven district, 246 m, 42.41123° N, 26.10004° E, 11.06.2005, coll. D. *Sopotlieva* (SOM 162945); S of Purvenets village, Yambol district, 191 m, 42.41694° N, 26.85969° E, 02.07.2005, coll. D. *Sopotlieva* (SOM 162944).

This is the first record of the species for this floristic

region. The numerous collected specimens show its wide distribution in the Toundzha Hilly Country.

119. *Velezia rigida* L.

Bu Toundzha Hilly Country: dry grasslands S of Purvenets village, Yambol district, 191 m, 42.41694° N, 26.85969° E, 02.07.2005, coll. D. *Sopotlieva* (SOM 162959); S of Troyanovo village, Bourgas district, 88 m, 42.54496° N, 27.14339° E, 11.07.2005, coll. D. *Sopotlieva* (SOM 162958).

The species has been reported so far from the Black Sea Coast, Northeast Bulgaria, Balkan Range (*Eastern*), Mt Sredna Gora (*Eastern*), Valley of River Strouma, Valley of River Mesta, Pirin Mts, Rhodopi Mts (*Central & Eastern*), Thracian Lowland, and Mt Strandzha (Assyov & Petrova 2006: 408).

Fabaceae

120. *Trifolium affine* C. Presl

Bu Toundzha Hilly Country: dry grasslands N of Konyovo village, Sliven district, 204 m, 42.55244° N, 26.16498° E, 19.07.2004, coll. D. *Sopotlieva* (SOM 162964).

A new species for the Toundzha Hilly Country, so far known from the Black Sea Coast (*Southern*), Rila Mts, Rhodopi Mts, and Thracian Lowland (Assyov & Petrova 2006: 395).

121. *Trifolium montanum* L.

Bu Toundzha Hilly Country: meadows in the Deliivanovi Livadi locality E of Tvurditsa town, Sliven district, 321 m, 42.6779° N, 25.9465° E, 10.06.2005, coll. D. *Sopotlieva* (SOM 162981); Dounavtsi village, Kazanluk district, LH-62, 25.05.1938, coll. A. *Yurkovskii* (SOM 45875).

The species is reported for first time for this floristic region, despite an old herbarium specimen (mentioned above).

Plantaginaceae

122. *Plantago lagopus* L.

Bu Toundzha Hilly Country: S of Dragodanovo village, Sliven district, 147 m, 42.61809° N, 26.56938° E, 03.07.2003, coll. D. *Sopotlieva* (SOM 162961); E of Zhelyu Voivoda village, Sliven district, 140 m, 42.57834° N, 26.51544° E, 15.06.2004, coll. D. *Sopotlieva* (SOM 162962); S of Palaouzovo village, Yambol district, 227 m, 42.52381° N, 26.73799° E, 02.07.2005, coll. D. *Sopotlieva* (SOM 162963).

So far this species has been known from the West

Frontier Mts, Valley of River Strouma, Pirin Mts, and Rhodopi Mts (*Eastern*) (Assyov & Petrova 2006: 296).

Ranunculaceae

123. *Nigella elata* Boiss.

Bu Toundzha Hilly Country: on the Borouka hill, S of Mladovo village, Sliven district, MH-30, 06.06.2003, coll. *D. Sopotlieva* & *N. Velev* (SOM 162956).

A new floristic region for this species.

Cyperaceae

124. *Eleocharis acicularis* (L.) Roem. & Schult.

Bu Toundzha Hilly Country: close to the microdam between the Slivova Mogila and Golina hills, S of Tvurditsa town, Sliven district, 330 m, 42.68321° N, 25.92111° E, 09.06.2005, coll. *D. Sopotlieva* (SOM 162979).

A new species for the floristic region of the Toundzha Hilly Country.

125. *Eriophorum latifolium* Hoppe

Bu Toundzha Hilly Country: meadows S of Kozarevo village, Tvurditsa town, Sliven district, 334 m, 42.69394° N, 25.87542° E, 06.06.2005, coll. *D. Sopotlieva* (SOM 162976); in the meadows near Yasen (Yasenovo) village, Kazanluk district, LH-52, 10.05.1970, coll. *D. Yordanov*, *S. Ganchev*, *S. Denchev* (SOM 122522); valley of river Leshnitsa, Dounavtsi village, Kazanluk district, LH-62, 25.05.1938, coll. *A. Yurkovskii* (SOM 8290).

The distribution of this species in the Toundzha Hilly Country is confirmed. According to Penev (1964), this species is distributed throughout the wet places in the mountainous regions and mountain fields in Bulgaria. Yordanov & al. (1972) reported it for the region of Kazanluk and there are two herbarium specimens in SOM (mentioned above) from this area. However,

these data were omitted in the subsequent editions of the Floras and Field Guides.

126. *Isolepis setaceae* (L.) R. Br.

Bu Toundzha Hilly Country: meadows in the Deliivanovi Livadi locality E of Tvurditsa town, Sliven district, 320 m, 42.67820° N, 25.94726° E, 10.06.2005, coll. *D. Sopotlieva* (SOM 162980).

This is the first record of the species for the mentioned floristic region.

Poaceae

127. *Puccinellia convoluta* (Hornem.) Fourr.

Bu Balkan Range (*Eastern*): grasslands in the Gerena locality, S of Nevestino village, Bourgas district, 192 m, 42.70592° N, 26.93695° E, 29.06.2005, coll. *D. Sopotlieva* (SOM 162942).

— Toundzha Hilly Country: Pasishteto locality, S of Trapoklovo village, Sliven district, 137 m, 42.61755° N, 26.59737° E, 23.06.2005, coll. *D. Sopotlieva* (SOM 162943); meadows along river Blatnitsa, Ezero village, Sliven district, 124 m, 42.46159° N, 26.01385° E, 11.06.2005, coll. *D. Sopotlieva* (SOM 162941); S of Dragodanovo village, Sliven district, 147 m, 42.61809° N, 26.56938° E, 06.06.2004, coll. *D. Sopotlieva* (SOM 162940); grasslands S of Bezmer village to Bolyarsko village, Yambol district, 160 m, 42.4508° N, 26.3876° E, 09.06.2004, coll. *D. Sopotlieva* (SOM 162939); S of Rosa village, Yambol district, 128 m, 42.36150° N, 26.40242° E, 10.06.2004, coll. *D. Sopotlieva* (SOM 162938).

There are data in the phytocoenological literature (Bondev & al. 1964; Ganchev & al. 1971) about the distribution of *Puccinellia convoluta* communities in the Toundzha Hilly Country but they were not taken into account in any recent edition of the Bulgarian Floras.

Reports 128–131

Stoyan Stoyanov, Svetlana Bancheva & Malina Delcheva

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria,
e-mail: stoyanov@bio.bas.bg, bancheva@bio.bas.bg, malinad@bio.bas.bg

Caryophyllaceae

128. *Dianthus pallens* Sm.

Bu Toundzha Hilly Country: Derventski hills, N of Golyam Dervent village, Elhovo Municipality, with flowers, MG-74, 03.08.2006, coll./det.

S. Bancheva, *M. Delcheva*, *S. Stoyanov* (SOM 163267).

This species has been so far known from the Black Sea Coast, Northeast Bulgaria, Danubian Plain, Balkan Range (*Eastern*), Valley of River Strouma, Rhodopi Mts

(Central, Eastern), Thracian Lowland, and Mt Strandzha (Delipavlov 2003).

Fabaceae

129. *Astragalus suberosus* subsp. *haarbachii* (Spruner)

V.A. Matthews

Bu Toundzha Hilly Country: Derventski hills, SW of Vulcha polyana village, Elhovo Municipality, in calcareous stony places, MG-74, 23.05.2006, coll./det. S. Bancheva, M. Delcheva, S. Stoyanov (SOM 163268).

So far the species has been known from three floristic regions in Bulgaria: the Black Sea Coast, Northeast Bulgaria and Danubian Plain (Assyov & Petrova 2006).

Rosaceae

130. *Amelanchier ovalis* Medius

Bu Toundzha Hilly Country: Sakar region, in calcareous stony places, E of the road between Golyama Zvezda locality and Izvorovo village, with fruits, MG-34, 06.08.2006, coll./det. S. Bancheva, M. Delcheva, S. Stoyanov (SOM 163269).

So far this taxon has been reported from Northeast Bulgaria, the Balkan Range (Central, Eastern), Sofia

Region, Znepole Region, Vitosha Region, West Frontier Mts, Valley of River Srouma, Mt Slavyanka, Pirin Mts, Mt Sredna Gora, Rhodopi Mts (Central, Eastern), and Thracian Lowland (Popova 2003).

Cyperaceae

131. *Juncellus serotinus* (Rottb.) C.B. Clarke [Syn.: *Pycreus serotinus* (Rottb.) Hayek]

Bu Toundzha Hilly Country: riparian sands of river Toundzha, near the forest above Elhovo town, MG-66, 21.07.1962, coll. N. Vihodtsevski (SOM 105851, sub *Scirpus michelianus*).

The species was erroneously determined by N. Vihodtsevski as *Scirpus michelianus* L. Until recently, it has been known from the Black Sea Coast, Northeast Bulgaria, Danubian Plain, Sofia Region, Valley of River Srouma, Valley of River Mesta, and Thracian Lowland (Assyov & Petrova 2006).

Acknowledgements. The financial support of NATURA 2000 Project and the National Science Fund (Project B 1503/2005) for the field studies is gratefully acknowledged.

Reports 132–202

Kit Tan¹ & Gert Vold²

¹ Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bi.ku.dk (author for correspondence)

² Botanical Garden, University of Copenhagen, Øster Farimagsgade 2C, DK-1353 Copenhagen K, Denmark

Considering the relative ease of access to Mt Trapezitsa (2024 m) in N Pindos, northwestern Greece, the mountain has surprisingly attracted little botanical attention. Two excursions were made in 1976 and 1977 by Per Hartvig and colleagues from the University of Copenhagen, and in 1984 by Parent (2005). This may partly be due to Trapezitsa's geographical position, flanked by lofty Smolikas (2637 m) to the northeast, and the dramatic peaks of Mt Timfi (Gamila at 2497 m and Astraka at 2436 m) to the south and southwest, all of which are areas favoured by mountain climbers and botanists and receiving far greater interest.

A brief visit by us in early August 2006 proved rewarding. We found two new species and listed numerous new records based on material not previously documented from this mountain. The following records are all new to Mt Trapezitsa (Nomos Ioanninon, Eparchia Konitsis) and when specifically stated, to the floristic region of Northern Pindos (NPi) as circumscribed in *Flora Hellenica* (Strid & Tan 1997).

Taxaceae

132. *Taxus baccata* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500–1700 m, 40°03' N, 20°47' E, 07.08.2006, Kit Tan & G. Vold 28884 (herb. Kit).

A group of trees 6–10 m tall, several individuals of which were male.

Apiaceae

133. *Bupleurum falcatum* subsp. *cernuum* (Ten.) Arcang.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250–1400 m, 40°02' N, 20°48' E, 05.08.2006, Kit Tan & G. Vold 28825 (LD, herb. Kit);

— NW slopes of Trapezitsa, *Abies borisii-regis* and

Pinus nigra forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 28891 (C, GB, LD, herb. Kit); loc. *ibid.*, 1700 m, *Kit Tan & G. Vold* 29012 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29020 (herb. Kit).

134. *Pastinaca sativa* L.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28823 (GB, herb. Kit).

135. *Torilis japonica* (Houtt.) DC.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28843 (herb. Kit).

Recorded only once from eparchia Konitsis (Tsaliki & al. 2005: 248).

136. *Trinia glauca* subsp. *pindica* Hartvig

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 29016 (herb. Kit).

Asteraceae

137. *Artemisia vulgaris* L.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28834 (herb. Kit).

138. *Carlina acaulis* subsp. *simplex* (Waldst. & Kit.) Nyman

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 28889 (GB, herb. Kit).

New for NPi. In Greece previously recorded from NC (Olimbos, Pieria).

139. *Centaurea salonitana* Vis. subsp. *salonitana*

Gr NW slopes of Trapezitsa, at beginning of ascent to mountain, 1000-1100 m, 40°03' N, 20°46' E, 07.08.2006, *Kit Tan & G. Vold* 28868 (herb. Kit).

140. *Cirsium candelabrum* Griseb.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28819 (GB, herb. Kit).

141. *Echinops bannaticus* Schrad.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28824 (GB, herb. Kit).

Rare in Greece, only once recorded in NPi (Tsaliki & al. 2005: 231) and once in NE (Babalonas 1981: 257).

142. *Petasites hybridus* (L.) P. Gaertn. & al.

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan & G. Vold* 28861 (herb. Kit).

143. *Ptilostemon strictus* (Ten.) Greuter

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28838 (GB, herb. Kit).

144. *Prenanthes purpurea* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 29003 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29030 (herb. Kit).

145. *Solidago virgaurea* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 29004 (GB, herb. Kit).

New for eparchia Konitsis.

146. *Tanacetum corymbosum* (L.) Sch.Bip.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan & G. Vold* 28820 (GB, herb. Kit).

Brassicaceae

147. *Fibigia clypeata* (L.) Medicus

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan & G. Vold* 28863 (herb. Kit); NW slopes of Trapezitsa, at beginning of ascent to mountain, 900-1050 m, 40°03' N, 20°46' E, 07.08.2006, *Kit Tan & G. Vold* 28866, 28870 (herb. Kit).

This is sometimes referred to *F. clypeata* var. *eriocarpa* (DC.) Thiéb.

148. *Iberis sempervirens* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28881 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29047 (herb. Kit).

149. *Malcolmia graeca* subsp. *hydraea* (Heldr. & Halácsy) Stork

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29054 (herb. Kit).

150. *Matthiola fruticulosa* subsp. *valesiaca* (Gay ex Gaudin) P.W. Ball

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest over limestone, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28872 (GB, herb. Kit).

Campanulaceae**151. *Asyneuma limonifolium* (L.) Janch.**

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28999 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29052 (herb. Kit).

152. *Campanula persicifolia* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28995 (GB, herb. Kit).

Caryophyllaceae**153. *Dianthus haematocalyx* subsp. *pindicola* (Vierh.) Hayek**

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28887 (GB, herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29059 (herb. Kit).

154. *Dianthus pinifolius* subsp. *lilacinus* (Boiss. & Heldr.) Wettst.

Gr NE slopes of Trapezitsa, open *Fagus-Pinus ni-*

gra and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan* & *G. Vold* 28859 (herb. Kit).

155. *Silene radicata* Boiss. & Heldr.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest over limestone, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28871 (GB, herb. Kit).

156. *Silene saxifraga* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, crevices of limestone rock, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28875 (herb. Kit).

New for NPi; otherwise in NE and NC.

Celastraceae**157. *Euonymus latifolius* Mill.**

Gr NW slopes of Trapezitsa, in *Abies* and *Pinus* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, fruiting, *Kit Tan* & *G. Vold* 29057 (C, GB, herb. Kit).

New for eparchia Konitsis.

Convolvulaceae**158. *Cuscuta epithimum* subsp. *kotschy* (Des Moul.) Arcang.**

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan* & *G. Vold* 28859a (herb. Kit).

Twining on *Dianthus pinifolius* subsp. *lilacinus*. First record for NPi, otherwise known from NC, NE and SPi.

Crassulaceae**159. *Sedum album* L.**

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, limestone rock, 1500-1700 m, 40°03' N, 20°47' E, 08.08.2006, *Kit Tan* & *G. Vold* 29058 (GB, herb. Kit).

160. *Sedum cepaea* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 29015 (herb. Kit).

Dipsacaceae**161. *Ptercephalus perennis* subsp. *bellidifolius* (Boiss.) Vierh.**

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and

Pinus nigra forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28992 (herb. Kit).

162. *Scabiosa columbaria* subsp. *ochroleuca* (L.) Čelak.
Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 29019 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29045 (herb. Kit).

163. *Scabiosa tenuis* Boiss.
Gr NW slopes of Trapezitsa, at beginning of ascent to mountain, 1000-1100 m, 40°03' N, 20°46' E, 07.08.2006, *Kit Tan* & *G. Vold* 28869 (GB, herb. Kit).

Fabaceae

164. *Astragalus glycyphyllos* L.
Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 29007 (herb. Kit).

New for eparchia Konitsis.

165. *Lathyrus niger* (L.) Bernh.
Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28837 (C, GB, herb. Kit).

166. *Medicago prostrata* Jacq.
Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29033 (herb. Kit).

New for NPi; otherwise occurring in NE and NC.

167. *Ononis pusilla* L.
Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28888 (herb. Kit).

168. *Teline monspessulana* (L.) K. Koch
Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28994 (herb. Kit).

New for NPi.

Gentianaceae

169. *Centaurium erythraea* Rafn

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28818 (GB, herb. Kit).

Geraniaceae

170. *Geranium macrorrhizum* L.
Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29025 (GB, herb. Kit).

171. *Geranium sanguineum* L.
Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29027 (GB, herb. Kit).

Guttiferae

172. *Hypericum perforatum* L.
Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28845 (GB, herb. Kit).

Lamiaceae

173. *Calamintha nepeta* (L.) Savi
Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 29009 (herb. Kit).

174. *Calamintha sylvatica* Bromf.
Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28818 (C, GB, herb. Kit).

New for eparchia Konitsis.

175. *Origanum vulgare* subsp. *viridulum* (Martin-Donos) Nyman
Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28836 (GB, herb. Kit).

176. *Salvia glutinosa* L.
Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan* & *G. Vold* 28858 (C, GB, herb. Kit).

177. *Salvia officinalis* L.
Gr NW slopes of Trapezitsa, at beginning of ascent

to mountain, 900-1000 m, 40°03' N, 20°46' E, 07.08.2006, *Kit Tan* & *G. Vold* 28865 (C, herb. Kit).

178. *Scutellaria columnae* All. subsp. *columnae*

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28828 (GB, herb. Kit).

179. *Teucrium montanum* L. subsp. *montanum*

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28890 (C, herb. Kit); summit area of Trapezitsa, earth pockets in limestone rock and scree, open *Pinus heldreichii* forest, 2000-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* obs.

Linaceae

180. *Linum hirsutum* subsp. *spathulatum* (Halácsy & Bald.) Hayek

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29046 (herb. Kit).

New for eparchia Konitsis. In NPi, known from Mt Chasia and near Eptachori, otherwise recorded from floristic regions NE and NC.

Malvaceae

181. *Lavatera thuringiaca* subsp. *ambigua* (DC.) Nyman

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28829 (LD, herb. Kit).

Onagraceae

182. *Epilobium gemmascens* C.A. Mey.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28842 (herb. Kit).

Polygalaceae

183. *Polygala nicaeensis* subsp. *mediterranea* Chodat

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29032 (herb. Kit).

Pyrolaceae

184. *Monotropa hypopitys* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, leaf litter, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28886 (herb. Kit); NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, leaf litter, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29037 (herb. Kit).

Ranunculaceae

185. *Delphinium peregrinum* L.

Gr NW slopes of Trapezitsa, stony open clearings in *Abies borisii-regis* and *Pinus nigra* forest, limestone, 1200 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan* & *G. Vold* 28996 (herb. Kit).

Rosaceae

186. *Potentilla recta* L.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28821 (herb. Kit).

187. *Rubus canescens* DC.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28830 (GB, herb. Kit), 28849 (C).

188. *Rubus hirtus* Waldst. & Kit.

Gr NE slopes of Trapezitsa, open *Fagus* and *Abies borisii-regis* forest, stabilized limestone scree, 1250-1400 m, 40°02' N, 20°48' E, 05.08.2006, *Kit Tan* & *G. Vold* 28831 (C, GB, herb. Kit).

189. *Sorbus umbellata* (Desf.) Fritsch

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan* & *G. Vold* 29021 (C, GB, herb. Kit).

New for eparchia Konitsis.

Rubiaceae

190. *Galium pseudaristatum* Schur

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan* & *G. Vold* 28858 (GB, herb. Kit).

New for eparchia Konitsis. Recorded as doubtful (?) for Greece in *Flora Europaea* (Ehrendorfer & Krendl 1976: 27).

Santalaceae

191. *Thesium linophyllum* subsp. *montanum* Čelak.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 29000 (C, GB, LD, herb. Kit).

New for NPi, otherwise known from EC, NC and NE.

Saxifragaceae

192. *Saxifraga marginata* Sternb.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, limestone rock crevices, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 28873 (herb. Kit).

On Trapezitsa, as elsewhere in Greece, the most widespread form is *S. m.* var. *coriophylla*, with rosettes of small narrow leaves. The collection cited is an extremely broad-leaved form with lax cushions, flat rosettes and very large petals, and matches two other gatherings in Greece, both restricted to Mt Voio (*Hartvig & al.* 8561 at B, C and *Hartvig & al.* 9000 at B, EGE, GB, LD) and said to "match var. *marginata* from Calabria, S Italy" (*Strid*, det. 1986). The Trapezitsa material is thus the first collection of this atypical taxon outside the known area of Mt Voio in nomos Kozanis, eparchia Voiou.

Scrophulariaceae

193. *Digitalis laevigata* subsp. *graeca* (Ivanina) Werner

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 28885 (C, GB, herb. Kit).

194. *Euphrasia salisburgensis* Hoppe

Gr Summit area of Trapezitsa, earth pockets in limestone rock and scree, open *Pinus heldreichii* forest, 2000-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29056 (herb. Kit).

Together with cushion-forming *Dianthus haematocalyx*, mat-forming *Teucrium montanum*, *Helianthemum oelandicum* subsp. *canum*, *Achillea fraasii*, *Edraianthus* sp., surrounded by tall trees of *Pinus heldreichii*, some more than 350 years old and attaining a girth of over a metre.

Thymelaeaceae

195. *Daphne oleoides* Schreb.

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m,

40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29042 (herb. Kit).

Tiliaceae

196. *Tilia platyphyllos* Scop.

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29023 (C, GB, herb. Kit).

New for eparchia Konitsis.

Liliaceae

197. *Allium sphaerocephalon* L.

Gr NW slopes of Trapezitsa, *Abies borisii-regis* and *Pinus nigra* forest, rocky limestone slope, 1500-1700 m, 40°03' N, 20°47' E, 07.08.2006, *Kit Tan & G. Vold* 29017 (herb. Kit).

198. *Lilium chalcedonicum* L.

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan & G. Vold* 28864 (herb. Kit).

199. *Lilium martagon* L.

Gr NE slopes of Trapezitsa, open *Fagus-Pinus nigra* and *Abies borisii-regis* forest, limestone rocks, 1400-1500 m, 40°02' N, 20°49' E, 06.08.2006, *Kit Tan & G. Vold* obs. Resembling the taxon known as *L. cattaniae* (Vis.) Vis., which is considered by V. Stevanović (pers. comm. July 2006) to be an ecological variant of *L. martagon* growing in the sub-Mediterranean region.

Orchidaceae

200. *Epipactis helleborine* (L.) Crantz

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, leaf litter overlying limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29035 (herb. Kit).

201. *Epipactis microphylla* (Ehrh.) Sw.

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, limestone, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29036 (herb. Kit).

202. *Neottia nidus-avis* (L.) Rich.

Gr NW slopes and summit area of Trapezitsa, *Pinus heldreichii* forest, leaf litter, limestone substrate, 1800-2024 m, 40°03' N, 20°48' E, 08.08.2006, *Kit Tan & G. Vold* 29024 (herb. Kit).

Reports 203–228

Kit Tan¹, Gert Vold² & George Sfikas³

¹ Institute of Biology, University of Copenhagen, Øster Farimagsgade 2D, DK-1353 Copenhagen K, Denmark, e-mail: kitt@bi.ku.dk (author for correspondence)

² Botanical Garden, University of Copenhagen, Øster Farimagsgade 2C, DK-1353 Copenhagen K, Denmark

³ 2 Vyzantiou St., Argroupolis, Athens, Greece

Asteraceae

203. *Achillea pindicola* Hausskn. subsp. *pindicola*

Gr Nomos Artis, Eparchia Artis: NW slopes of Mt Katafidi, 2120 m, 39°26' N, 21°08' E, 17.08.2006, *Kit Tan* & *G. Vold* 29107 (GB, herb. Kit).

New for Katafidi, previously recorded for Vardousia, Timfristos, Karava and Kaliakouda.

204. *Centaurea epirota* Halácsy

Gr Nomos Artis, Eparchia Artis: summit of Mt Rouista, earth pockets amongst limestone rocks and stones, 2200–2254 m, 39°30' N, 21°11' E, 18.08.2006, *Kit Tan* & *G. Vold* 29126 (herb. Kit).

New for Mt Rouista.

205. *Galinsoga parviflora* Cav.

Gr Nomos Fokidos, Eparchia Parnassidos: Mt Vardousia, outside village of Athanasios Diakos (Ano Mousounitsa), 38°42' N, 22°08' E, 24.06.2006, *Sfikas* s.n. (photo!).

New for Sterea Ellas (StE) and Central Greece. Previously recorded from the phytogeographical regions Pe (Taigetos), NC, NE and EAe (Samos).

206. *Gnaphalium hoppeanum* subsp. *magellense* (Fiori & Paol.) Strid

Gr Nomos Artis, Eparchia Artis: NW slopes of Mt Katafidi, 2120–2393 m, 39°26' N, 21°08' E, 17.08.2006, *Kit Tan* & *G. Vold* 29111 (herb. Kit).

New for Katafidi.

Boraginaceae

207. *Cynoglossum pustulatum* subsp. *parvifolium* (Vis.) Sutorý

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29135 (herb. Kit).

New for Mt Rouista.

208. *Myosotis alpestris* F.W. Schmidt subsp. *alpestris*

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29140 (herb. Kit).

New for Mt Rouista.

Brassicaceae

209. *Arabis alpina* subsp. *caucasica* (Willd.) Briq.

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29146 (herb. Kit).

New for Mt Rouista.

210. *Aubrieta scardica* (Wettst.) Gustavsson

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29138 (herb. Kit).

New for Mt Rouista.

211. *Capsella grandiflora* (Fauché & Chaub.) Boiss.

Gr Nomos Artis, Eparchia Artis: summit of Mt Rouista, earth pockets amongst limestone rocks and stones, 2200–2254 m, 39°30' N, 21°11' E, 18.08.2006, *Kit Tan* & *G. Vold* 29125 (GB, herb. Kit).

New for Mt Rouista.

212. *Draba lasiocarpa* Rochel

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29136 (herb. Kit).

New for Mt Rouista.

Campanulaceae

213. *Asyneuma canescens* (Waldst. & Kit.) Griseb. & Schenk

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29131 (GB, herb. Kit).

New for Mt Rouista.

214. *Campanula rotundifolia* L.

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29145 (herb. Kit).

New for Mt Rouista.

Caryophyllaceae

215. *Arenaria conferta* subsp. *serpentini* (A.K. Jacks.) Strid

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800–

1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29129 (GB, herb. Kit).

New for Mt Rouista.

216. *Dianthus integer* subsp. *minutiflorus* (Halácsy) Strid

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29130 (herb. Kit).

New for Mt Rouista.

217. *Silene parnassica* Boiss. & Spruner subsp. *parnassica*

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29137 (herb. Kit).

New for Mt Rouista.

Fabaceae

218. *Cytisus scoparius* (L.) Link

Gr Nomos Karditsis, Eparchia Karditsis: Pefkofyto, E of Mt Karavoula, c. 600 m, 39°23' N, 21°38' E, 01.05.2006, *Giorgos Douros* s.n. (herb. Sfikas; photo!).

New for Greece. W, S and C Europe, extending to Denmark and S Sweden.

219. *Trifolium noricum* Wulfen

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29148 (LD, herb. Kit).

New for Mt Rouista.

Geraniaceae

220. *Geranium macrorrhizum* L.

Gr Nomos Messinias, Eparchia Kalamon: Langada pass, road to Pigadia, shady *Pinus nigra* forest, c. 1450 m, 37°04' N, 22°15' E, *Bonetti* s.n. (photo!).

First collected on western foothills of Taigetos by Zahn in 1899 and 1901 (material at WU-HAL) and not reported since. This is the southernmost locality in Greece and very disjunct from the nearest localities in Sterea Ellas.

Lamiaceae

221. *Scutellaria alpina* L.

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29128 (C, GB, herb. Kit).

New for Mt Rouista.

Rosaceae

222. *Potentilla speciosa* Willd.

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29139 (GB, herb. Kit).

New for Mt Rouista. Referred to *P. s.* var. *discolor*.

Rubiaceae

223. *Asperula oetaea* (Boiss.) Halácsy

Gr Nomos Artis, Eparchia Artis: Mt Katafidi, 1400-1800 m, 39°25' N, 21°10' E, 17.08.2006, *Kit Tan* & *G. Vold* 29119 (herb. Kit).

New for Katafidi.

224. *Asperula pinifolia* (Boiss.) Ehrend. & Schönb.-Tem.

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29141 (GB, herb. Kit).

New for Mt Rouista.

225. *Valantia aprica* (Sm.) Tausch

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29133 (herb. Kit).

New for Mt Rouista.

Scrophulariaceae

226. *Scrophularia laciniata* Waldst. & Kit. subsp. *laciniata*

Gr Nomos Artis, Eparchia Artis: Mt Rouista, 1800-1860 m, 39°31' N, 21°10' E, 19.08.2006, *Kit Tan* & *G. Vold* 29144 (herb. Kit).

New for Mt Rouista.

Thymelaeaceae

227. *Daphne oleoides* Schreb.

Gr Nomos Artis, Eparchia Artis: summit of Mt Rouista, earth pockets amongst limestone rocks and stones, 2200-2254 m, 39°30' N, 21°11' E, 18.08.2006, *Kit Tan* & *G. Vold* 29124 (C, herb. Kit).

New for Mt Rouista.

Liliaceae

228. *Colchicum parnassicum* Boiss.

Gr Nomos Fokidos, Eparchia Parnassidos: Mt Paliouvouni (Giona), earth pockets in limestone and scree, perianth pink, tessellated, 1970 m, 38°38' N, 22°18' E, 21.07.2006, *Kit Tan* & *G. Vold* 28815 (herb. Kit), 2006-57-2 (C, GB)

New for Mt Giona, previously known only from Mt Parnassos and Mt Elikonas in Sterea Ellas.

Reports 229–241

Vladimir Vladimirov, Daniella Ivanova & Dessislava Dimitrova

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria,
e-mail: vdvlad@bio.bas.bg, dani@bio.bas.bg, desco@bio.bas.bg

Adiantaceae

229. *Cheilanthes persica* (Bory) Mett. ex Kuhn

Bu Znepole Region: Berende Izvor village, Dragoman district, in fissures of small rock by the road, c. 460 m, 43°00'07.0" N, 22°53'37.5" E, FN-56, 07.09.2006, coll. D. Ivanova (SOM).

— Mt Slavyanka: Mt Sturgach, GL-28, 04.06.1980, coll. B. Kitanov (SO 100301).

A new species for Znepole Region and Mt Slavyanka region. The population near Berende Izvor village is rather small, consisting of only 20 individuals on c. 2 m². No other individuals were found nearby.

This species has been so far known from the Balkan Range (*Eastern*), Rhodopi Mts (*Western*) and Mt Strandzha (Andreev 1992; Delipavlov 2003). Assyov & Petrova (2006) included the whole Rhodopi Mts in the distribution map of *C. persica*. Actually, the species distribution in the Rhodopi Mts needs a clarification. *Cheilanthes persica* was reported for Rhodopi Mts (*Eastern*) by Vassileva & Vihodcevsy (1974). The authors reported this fern from the calcareous rocks by the dam wall in Kurdzhali town. Nevertheless, only *Ceterach officinarum* and *Asplenium* species were found to grow there. The careful search did not reveal the presence of *C. persica* in that locality.

Herbarium specimens and literature sources show the distribution of this fern in the Rhodopi Mts (*Central*), near Bachkovo Monastery. Although the species has not been collected since 1976 and several attempts of the second author (DI) to find it during the last 5 years proved unsuccessful, its presence cannot be excluded on the grounds that there have been some recent observations of the species (B. Assyov, pers. commun.; A.S. Petrova, pers. commun.).

Cheilanthes persica has been reported in the Floras for Rhodopi Mts (*Western*), most probably on the basis of the herbarium specimens from Slashten village, Gotse Delchev district. In fact, this village is situated in the Valley of River Mesta. Unfortunately, the habitat was destroyed by human activities (*Pinus* plantation) in that locality.

The species was reported for the Forebalkan (*Eastern*), Lovech town in 1902 (Urumov 1902, SOM 828 sub *Cheilanthes szowitzii*), but its presence has never been confirmed ever since.

In 2004 the fern was reported for the Toundzha Hilly Country, the Hisar hill near Karnobat town (Dimitrov 2004). There has been a misidentification: *C. persica* was reported instead of *Notholaena marantae*, which is the only representative of the family, growing there together with *Asplenium trichomanes* and *A. septentrionale*.

Asteraceae

230. *Crepis conyzifolia* (Gouan) A. Kern.

Bu Rhodopi Mts (*Central*): Mt Perelik, southern part, sub-alpine meadows, silicate, 1900 m, 41°36' N, 24°36' E, 29.07.1997, coll. E. Bergmeier & al. (SOM 155494).

According to Assyov & Petrova (2006), the species has been recorded from the Balkan Range (*Western, Central*), Znepole Region, Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, Rila Mts, and Rhodopi Mts (*Eastern*).

231. *Tragopogon porrifolius* L.

Bu Valley of River Strouma (*Southern*): on a waste and pastures by the road Sandanski – Petrich, 100–120 m, 41°28'16" N, 23°15'15" E, 26.04.2004, coll. V. Vladimirov, D. Ivanova & D. Dimitrova (SOM; photo VV).

New for this floristic region. So far it has been reported for the Danubian Plain, Balkan Range, Znepole Region, Sofia Region, Rhodopi Mts (*Eastern*), and Thracian Lowland (Assyov & Petrova 2006).

Betulaceae

232. *Alnus incana* (L.) Moench

Bu Rhodopi Mts (*Central*): Trigrad gorge near Dyavolskoto Gurlo cave, damp places by the river, limestone, 1100–1150 m, 41°37' N, 24°23' E, 26.07.1997, coll. E. Bergmeier & al. (SOM 156352).

New for this floristic subregion. According to Assyov & Petrova (2006), the species has been recorded from the Balkan Range (*Central*), Vitosha Region, West Frontier Mts, Rila Mts, and Rhodopi Mts (*Western*).

Campanulaceae

233. *Asyneuma canescens* (Waldst. & Kit.) Griseb. & Schenk

Bu Rhodopi Mts (*Central*): hills E of Yagodina village, dry meadows, limestone, 1200 m, 41°38' N, 24°30' E, 25.07.1997, coll. E. Bergmeier & al. (SOM 156102).

So far the species has been reported for the Forebalkan (*Western*), Balkan Range (*Central*, *Eastern*), Znepole Region, Vitosha Region, Valley of River Strouma, Mt Slavyanka, Pirin Mts, Rila Mts, Rhodopi Mts (*Western*, *Eastern*), and Thracian Lowland (Assyov & Petrova 2006).

There are old herbarium specimens from NE Bulgaria (SOM 75489, 75490, 75506) and Mt Sredna Gora (*Western*, SOM 90564), and thus, present occurrence of the species in these floristic regions needs confirmation. The species was collected in Rhodopi Mts (*Central*) in 1899 by Urumov (SOM 75499). However, this record has been overlooked afterwards in the major botanical literature (Anchev 1992; Cheshmedzhiev 2003).

234. *Jasione bulgarica* Stoj. & Stef.

Bu Rhodopi Mts (*Central*): Mt Perelik, southern part, subalpine meadows, silicate, 1900 m, 41°36' N, 24°36' E, 29.07.1997, coll. E. Bergmeier & al. (SOM 155476).

According to Assyov & Petrova (2006), the species has been reported for the Balkan Range (*Central*), Vitosha Region, West Frontier Mts, Rila Mts, Pirin Mts, and Rhodopi Mts (*Western*).

Caryophyllaceae

235. *Scleranthus neglectus* Rochel ex Baumg.

Bu Rhodopi Mts (*Central*): Mt Perelik, southern part, subalpine meadows, silicate, 1900 m, 41°36' N, 24°36' E, 29.07.1997, coll. E. Bergmeier & al. (SOM 155467).

New for Rhodopi Mts. So far the species has been known for the Balkan Range (*Western*, *Central*), Sofia Region, Vitosha Region, West Frontier Mts, Mt Belasitsa, Pirin Mts, and Rila Mts (Assyov & Petrova 2006).

Grossulariaceae

236. *Ribes nigrum* L.

Bu Rhodopi Mts (*Central*): by river Chepelarska between Hvoina village and the town of Chepelare, 700-750 m, 41°48'06" N, 24°42'35" E, 06.06.2006, coll. V. Vladimirov (SOM).

New for this floristic subregion. Assyov & Petrova (2006) reported it for the Rhodopi Mts (*Western*).

Linaceae

237. *Radiola linoides* Roth

Bu Rhodopi Mts (*Western*): NW of Dospat town, above the eastern side of the dam, damp to dry meadows, on sandy soil in openings of coniferous

forests, 1250 m, 41°42' N, 24°07' E, 24.07.1997, coll. E. Bergmeier & al. (SOM 156346).

According to Assyov & Petrova (2006), the species is known for the Black Sea Coast (*Southern*), Sofia Region, Vitosha Region, Mt Slavyanka, Mt Sredna Gora, and Rhodopi Mts (*Central*). There are herbarium specimens from Rhodopi Mts (*Western*, SOA 33561, 33562) that have not been recorded in the botanical literature.

Scrophulariaceae

238. *Lathraea rhodopea* Dingl.

Bu Valley of River Strouma (*Southern*): W-NW of Gabrene village, Petrich district, *Corylus avellana* bushes, c. 300 m, 41°22'18" N, 22°57'54" E, 26.04.2004, obs. V. Vladimirov, D. Ivanova & D. Dimitrova and photographed by VV.

New species for the Valley of River Strouma.

Violaceae

239. *Viola elatior* Fr.

Bu Forebalkan (*Western*): hay meadows near the airport between Montana town and Krapchene village, 200-220 m, 43°23'16" N, 23°15'48" E, 21.06.2002, coll. V. Vladimirov & D. Dimitrova (SOM).

New species for this floristic region.

Juncaceae

240. *Juncus tenuis* Willd.

Bu Forebalkan (*Western*): hay meadows near Vurshets town, c. 400 m, 43°12'22" N, 23°18'15" E, 03.07.2002, coll. V. Vladimirov & D. Dimitrova (SOM).

New for this floristic region. This North American species has been reported so far from Sofia Region, Znepole Region, Vitosha Region, West Frontier Mts, Mt Belasitsa, Rila Mts, Toundzha Hilly Country, and Mt Strandzha (Assyov & Petrova 2006).

Liliaceae

241. *Fritillaria orientalis* Adams

Bu Forebalkan (*Western*): oak forests in the localities Chemerikovets and Maluk Chemerikovets, near Melyane village, Montana district, 550-600 m, 43°20' N, 23°01' E, 07.04.2006, coll. V. Vladimirov & R. Dimova (SOM).

New for the Forebalkan.

Acknowledgements: The support of the National Science Fund (Project 1503/2005) for the field work and work in herbaria and libraries is gratefully acknowledged.

Reports 242–243

Vladimir Vladimirov

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria,
e-mail: vdvlad@bio.bas.bg

Asteraceae

242. *Ambrosia artemisiifolia* L.

- Bu** Forebalkan (*Eastern*): by the road from Yablanitsa town c. 1 km before Zlatna Panega, 200–250 m, 43°05′12.6″N, 24°08′54.5″E, 17.08.2006, coll. V. Vladimirov (SOM); by the road Yablanitsa – Cherven Bryag, near Petrevene village, at the fork to Todorichene village, 17.08.2006, obs. V. Vladimirov. In both localities the populations consisted of several hundred individuals each.
- Znepole Region: Dragoman, near the railway station, by the rail tracks, 600–650 m, 42°55′23″N, 22°55′55″E, 03.10.2005, coll. V. Vladimirov & A. Petrova (SOM). The population consisted of a few hundred individuals.
- Rila Mts: Doupnitsa town, by the road Sofia – Koulata, 42°16′07″N, 23°06′19″E, 22.08.2006, coll. V. Vladimirov (SOM). The population consisted of c. 25 individuals.

This North American species has been recently reported for the Bulgarian flora (Dimitrov 2001; Dimitrov & Tzonev 2002; Milanova & Nakova 2002). During the past few years it has been spreading rapidly along the roads and railways in Bulgaria. The species is known from the Danubian Plain, Forebalkan (*Western*) and Sofia Region (Assyov & Petrova 2006) but numerous new localities have been recorded within these floristic regions:

Danubian Plain: by the road Montana – Lom near Dolno Tserovene village, 43°35′15″N, 23°15′07″E, 09.08.2005, a few hundred individuals, obs. V. Vladimirov; by the road Montana – Lom between the villages of Virove and Dolno Tserovene at the bridge above the railway, 43°32′46″N, 23°13′56″E, 09.08.2005, some 100 individuals, obs. V. Vladimirov; by the road from Staliiska Mahala village to Orsoya village (closer to Orsoya), Montana distr., in abandoned arable land, 43°46′19″N, 23°06′43″E, 14.08.2006, several thousand individuals, obs. V. Vladimirov; by the road in and W of Orsoya village, Montana distr., 43°46′37″N, 23°04′52″E, 14.08.2006, hundreds of individuals, obs. V. Vladimirov; by the road Lom – Archar in the village of Slivata, Montana dis-

tr., 43°46′01″N, 23°03′07″E, 03.10.2006, hundreds to a few thousand individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; by the road Archar – Montana, at the fork to Dobri Dol village, 43°45′47″N, 22°59′38″E, 03.10.2006, thousands of individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; by the road Archar – Montana, c. 1 km off Smirnenki village, 43°36′58″N, 23°02′10″E; 03.10.2006, hundreds of individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova;

Forebalkan (*Western*): at the railway station in the town of Vratsa, 43°12′29″N, 23°33′53″E, 03.10.2006, a few thousand individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; by the railway station in the village of Beli Izvor, Vratsa distr., 43°16′41″N, 23°27′45″E, 03.10.2006, thousands of individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; at the railway station in the town of Krivodol, 43°22′26″N, 23°28′17″E, 03.10.2006, a few hundreds of individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; at the railway station in the village of Rakevo, 43°25′15″N, 23°25′32″E, 03.10.2006, 70–80 individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; by the road Montana – Vratsa near the village of Krapchene, 43°23′09″N, 23°17′32″E, 03.10.2006, a few hundred individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; by the road Roman – Mezdra, c. 2 km away from the village of Kalen, 550 m, 43°12′19″N, 23°45′45″E, 06.10.2006, thousands of individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova; at the railway station in the town of Mezdra, 200–210 m, 43°08′33″N, 23°43′09″E, 06.10.2006, 50–60 individuals, obs. V. Vladimirov, R. Natcheva & M. Vulkova;

Sofia Region: by the road Sofia – Petrohan pass, near the fork to Ponor village, 870 m, 42°54′34″N, 23°09′40″E, 06.10.2006, thousand of specimens, obs. V. Vladimirov, R. Natcheva & M. Vulkova.

Sapindaceae

243. *Koelreuteria paniculata* Laxm.

Bu Rhodopi Mts (*Central*): limestone rocky slopes be-

neath Assen's Fortress, c. 2 km S of Assenovgrad, LG-25, 23.06.2004, obs. V. Vladimirov. A few probably planted fruiting trees at the fortress and numerous young seedlings and trees on the slopes below were observed.

This Southeast Asian species has long been cultivated

in Bulgaria as an ornamental tree. So far no data for naturalized populations has been reported.

Acknowledgements: Financial support of the National Science Fund, project MU-B 1514/2005, for field work on *Ambrosia* is gratefully acknowledged.

References

- Anchev, M. 1992. *Asyneuma* Griseb. & Schenk. – In: Kozhuharov, S. (ed.), Field Guide to the Vascular Plants in Bulgaria. P. 280. Nauka & Izkoustvo, Sofia (in Bulgarian).
- Andreev, N. 1992. *Cheilanthes* Swartz. – In: Kozhuharov, S. (ed.), Field Guide to the Vascular Plants in Bulgaria. P. 80. Nauka & Izkoustvo, Sofia (in Bulgarian).
- Assyov, B. & Petrova, A. (eds). 2006. Conspectus of the Bulgarian vascular flora. Distribution maps and floristic elements. Ed. 3. BBF, Sofia.
- Babalonas, D. 1981. Floristischer Katalog des Mündungsgebiets des Evros. – Candollea, **36**(1): 251-269.
- Beldie, A. 1952. *Fagaceae*. – In: Săvulescu, T. (ed.), Fl. Reipubl. Popularis Romanicae. Vol. **1**, pp. 217-260. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Beldie, A. 1977. The Romanian Flora. Illustrated Determiner of Vascular Plants. Vol. **1**. The Romanian Acad. Publishing House, Bucharest (in Romanian).
- Beldie, A. 1979. The Romanian Flora. Illustrated Determiner of Vascular Plants. Vol. **2**. The Romanian Acad. Publishing House, Bucharest (in Romanian).
- Bondev, I., Ganchev, S. & Kochev, Ch. 1964. Subtype Halophyte Vegetation. – In: Ganchev, I., Bondev, I. & Ganchev, S. (eds), Vegetation of Meadows and Pastures in Bulgaria. Pp. 237-239. Bulg. Acad. Sci. Press, Sofia (in Bulgarian).
- Buia, A. 1959. Rare plants in the Romanian flora, in the Region of Oltenia. – Ocrot. Nat., **4**: 13-42 (in Romanian).
- Cheshmedzhiev, I. 2003. *Asyneuma* Griseb. & Schenk. – In: Delipavlov, D. & Cheshmedzhiev, I. (eds), Key to the Plants of Bulgaria. P. 375. Acad. Press Agrarian Univ., Plovdiv (in Bulgarian).
- Ciocârlan, V. 2000. The Romanian Illustrated Flora. *Pteridophyta* et *Spermatophyta*. Ceres Publishing House, Bucharest (in Romanian).
- Costache, I. 2000. Lunca Banului – Mehedinți Forest Flora. – Analele Univ. Craiova, Biol. Hort. Tehnol. Prelucrării Produselor Agric., **4/40**: 6-12.
- Costache, I. 2004a. Contribution to the Romanian flora. – Acta Bot. Horti Bucurest., **31**: 91-96.
- Costache, I. 2004b. The Ecology, Chorology and Coenology of the Rare and Vulnerable Species in the Lower Basin of the Motru River. – Analele Univ. Craiova, Biol. Hort. Tehnol. Prelucrării Produselor Agric., Ing. Med., Omagial volume, **7/43**(2): 239-257 (in Romanian).
- Costache, I. 2005a. Important protection areas in the Inferior Basin of the Motru River. – Analele Univ. Craiova, Biol. Hort. Tehnol. Prelucrării Produselor Agric., **10/46**: 21-26.
- Costache, I. 2005b. The flora and vegetation of the Lower hydrographic Basin of the River Motru. *PhD Thesis*. Bucharest (in Romanian).
- Csűrös, Št. 1964. *Campanula* L. Section II. *Cervicaria* Gris. – In: Nyárády, E.I. (ed.), Fl. Reipubl. Popularis Romanicae. Vol. **9**, pp. 66-75. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Delipavlov, D. 2003. *Cheilanthes* Swartz (p. 33), *Caryophyllaceae* (pp. 65-88). – In: Delipavlov, D. & Cheshmedzhiev, I. (eds), Key to the Plants of Bulgaria. Acad. Press Agrarian Univ., Plovdiv (in Bulgarian).
- Dimitrov, D. (ed.). 2001. Conspectus of the Bulgarian vascular flora. Distribution maps and floristic elements. BSBCP, Sofia.
- Dimitrov, D.S. 2004. Flora and vegetation on Terziysky hill and Hissar – East Balkans. – In: Nature of Karnobat Region. Vol. **1**, pp. 61-65. Zograf, Karnobat (in Bulgarian).
- Dimitrov, D. & Tzonev, R. 2002. On the distribution of *Ambrosia artemisiifolia* L. (*Asteraceae*) in Bulgaria. – Phytol. Balcan., **8**(1): 31-33.
- Ehrendorfer, F. & Krendl, F. 1976. *Galium* L. Sect. *Leiogalium* Ledeb. – In: Tutin, T.G. & al. (eds), Flora Europaea. Vol. **4**, pp. 23-28. Cambridge Univ. Press, Cambridge.
- Evsatieva, L. 1984. *Oenanthe lachenalii* C.C. Gmel. – In: Velchev, V. (ed.), Red Data Book of PR Bulgaria. Vol. **1**. Plants. P. 263. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).
- Ganchev, S., Kochev, H. & Jordanov, D. 1971. The Halophytic vegetation in Bulgaria. – Izv. Bot. Inst. (Sofia), **21**: 5-50 (in Bulgarian).
- Georgescu, C.C. 1952. *Corylus* L. – In: Săvulescu, T. (ed.), Fl. Reipubl. Popularis Romanicae. Vol. **1**, pp. 197-202. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Grințescu, I. 1960. *Digitalis* L. – In: Săvulescu, T. (ed.), Fl. Reipubl. Popularis Romanicae. Vol. **7**, pp. 565-574. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Grințescu, I. & Nyárády, E.I. 1957. *Lathyrus* L. – In: Săvulescu, T. (ed.), Fl. Reipubl. Popularis Romanicae. Vol. **5**, pp. 405-445. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Gușuleac, M. 1961. *Thymus* L. – In: Săvulescu, T. (ed.), Fl. Reipubl. Popularis Romanicae, Vol. **8**, pp. 301-334. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).

- Gușuleac, M.** 1964. *Campanula* L. Section VI. *Rapunculus* Gris. – In: **Nyárády, E.I.** (ed.), Fl. Reipubl. Popularis Romanicae, Vol. 9, pp. 111-123. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Ghișa, E.** 1964. *Campanula* L. Section I. *Medium* DC. – In: **Nyárády, E.I.** (ed.), Fl. Reipubl. Popularis Romanicae, Vol. 9, pp. 57-66. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Katsikopoulos, I.** 1936. Contribution to the study of the flora of Samothraki island. – *Geörgikon Deltion*, 29: 225-227, 264-267, 301-304.
- Maloș, C.** 1972. Contributions à l'écologie et la protection du noisetier turque (*Corylus colurna* L.) en Olténie. – *Studies, Research. COMN Gorj, Tg. Jiu*. Pp. 43-48 (in Romanian).
- Maloș, C.** 1977. The flora and vegetation of the cormophytes of the Superior hydrographic Basin of the River Motru. *PhD Thesis*. Bucharest (in Romanian).
- Milanova, S.D. & Nakova, R.** 2002. Some morphological and bioecological characteristics of *Ambrosia artemisiifolia* L. – *Herbologia*, 3(1): 113-121.
- Morariu, I.** 1957. *Medicago* L. – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 5, pp. 118-136. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Nyárády, A.** 1955. *Corydalis* Vent. – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 3, pp. 84-95. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Nyárády, A. & Beldie, A.** 1972. *Ophrys* L. – In: **Nyárády, E.I. & al.** (eds), Fl. Reipubl. Socialist. Romania. Vol. 12, pp. 655-662. Editio Acad. Reipubl. Socialist. Romania, Bucharest (in Romanian).
- Nyárády, E.I.** 1953. *Helleborus* L. (pp. 423-430), *Ranunculus* L. (pp. 561-627). – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 2. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Nyárády, E.I.** 1964. *Cirsium* Adans. – In: **Nyárády, E.I.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 9, pp. 672-743. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Oltean, M., Negrean, G., Popescu, A., Roman, N., Dihoru, G., Sanda, V. & Mihăilescu, S.** 1994. The Red List of the higher plants from Romania. – In: *Ecological studies, Syntheses and Documentation*. Vol. 1, pp. 1-52. The Romanian Acad. Publishing House, Bucharest (in Romanian).
- Parent, G.H.** 2005. Données floristiques inédites sur les montagnes grecques. – *Syst. & Geogr. Pl.*, 75: 195-238.
- Paucă, A.** 1961. *Acanthus* L. – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 8, pp. 72-75. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Paucă, A. & Beldie, A.** 1972. *Orchis* L. – In: **Nyárády, E.I. & al.** (eds), Fl. Reipubl. Socialist. Romania. Vol. 12, pp. 663-707. Editio Acad. Reipubl. Socialist. Romania, Bucharest (in Romanian).
- Paucă, A. & Morariu, I.** 1972. *Epipactis* Zinn. – In: **Nyárády, E.I. & al.** (eds), Fl. Reipubl. Socialist. Romania. Vol. 12, pp. 757-768. Editio Acad. Reipubl. Socialist. Romania, Bucharest (in Romanian).
- Păun, M.** 1966. The surroundings of Craiova town, an important floristic and vegetation center. – *Nat. Protec.*, 10(2): 205-212 (in Romanian).
- Penev, I.** 1964. *Eriophorum* L. – In: **Jordanov, D.** (ed.), Fl. Reipubl. Popularis Bulgaricae. Vol. 2, pp. 33-37. In *Aedibus Acad. Sci. Bulgaricae, Serdicae* (in Bulgarian).
- Petrova, A.** 2004. New data on the flora of West Bulgaria. – *Phytol. Balcan.*, 10(2-3): 211-215.
- Popescu, G.** 1988. Phytocoenological consideration on the *Quercus cerris* L. and *Q. frainetto* Ten. forests of Oltenia. – *Rev. Roumanie Biol., Sér. Biol. Vég.*, 33(2): 75-91.
- Popova, M.** 2003. *Rosaceae*. – In: **Delipavlov, D. & Cheshmedzhiev, I.** (eds), Key to the Plants of Bulgaria. Pp. 170-198. Acad. Press Agrarian Univ, Plovdiv (in Bulgarian).
- Prodan, I.** 1953a. *Caryophyllaceae*. – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 2, pp. 23-295. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Prodan, I. & Nyárády, E.I.** 1966. *Crocus* L. – In: **Nyárády, E.I.** (ed.), Fl. Reipubl. Socialist. Romania. Vol. 11, pp. 444-454. Editio Acad. Reipubl. Socialist. Romania, Bucharest (in Romanian).
- Răvăruf, M.** 1956. *Crassulaceae*. – In: **Săvulescu, T.** (ed.), Fl. Reipubl. Popularis Romanicae. Vol. 4, pp. 46-85. Editio Acad. Reipubl. Popularis Romanicae, Bucharest (in Romanian).
- Sârbu, I., Negrean, G., Oprea, A. & Cristurean, I.** 2003. The National Lists Conform to A Criterion of the Project. – In: **Coldea, G., Sârbu, I., Cristea, V., Sârbu, A., Negrean, G., Oprea, A., Cristurean, I. & Popescu, G.** A Guide to the Identification of Important Plant Areas in Romania. Pp. 39-79. Alo Bucuresti Publishing House, Bucharest (in Romanian).
- Siering, G. & Henning, B.** 1989. Mitteilung zu einem Vorkommen vor *Epipactis persica* (Soó) Nannf. in Rila Gebirge Bulgariens. – *Mitt. Bl. Arbeitskr. Heim. Orch.*, Baden-Württ., 7(2): 4-6.
- Strid, A. & Tan, Kit** (eds). 1997. *Flora Hellenica*. Vol. 1. Koeltz Scientific Books, Königstein.
- Tsaliki, M., Bergmeier, E. & Dimopoulos, P.** 2005. Vegetation patterns and plant diversity in mixed oak woodland in the region of Bourazani, Epirus (NW Greece). – *Bot. Chron. (Patras)*, 18(1): 225-251.
- Urumov, I.** 1902. *Plantae novae Bulgaricae*. – *Period. Spis. Bulg. Knizh. Druzh.*, 63: 1-3.
- Vassileva, S. & Vihodcevsy, N.** 1974. Supplement pour la flore des Rhodopes Orientales. – *God. Sofiisk. Univ. "Kliment Okhridski" Biol. Fak.*, 2 Bot., 66: 41-44 (in Bulgarian).
- Vicol, E.C.** 1963. New data as regards the Romanian flora. *Studies, Research Biol. (Cluj)* 1. Annul XIV. Pp. 73-79. The Romanian Acad. Publishing House, Bucharest (in Romanian).
- Yordanov, D., Ganchev, S., Denchev, S., Meshinev, T. & Nikolov, N.** 1972. Some new data on the spread and ecologic-geographic characteristics of several plants from the western part of the Kazanlak valley. – *Izv. Bot. Inst. (Sofia)*, 22: 135-142 (in Bulgarian).