Contribution to the flora of Mt Goulinas (Sterea Ellas, Greece)

Abstract

Mt Goulinas is located in the NW part of Sterea Ellas in south-central Greece. A first floristic inventory of the mountain is presented based on field work and literature records. The known vascular flora of the study area consists of 487 taxa out of which 305 taxa are reported for the first time. Among these *Euphorbia phymatosperma* subsp. *cernua* and *Elymus caninus* are new to Sterea Ellas.

*Key words*: vascular plants, floristic inventory, south-central Greece.

Introduction

Over the last decades an intensive floristic research carried out in the mountains of Sterea Ellas in south-central Greece (Dimopoulos & al. 2013). Despite that big effort, the botanical exploration has been focused almost entirely on the high mountains, leaving outside extensive coastal, lowland and lower mountain areas. Mt Goulinas is one of these low mountains, with an elevation of less than 1500 m a.s.l., that has been “floristically ignored”. Although Mt Goulinas presents a phytogeographical interest due to its geographical position and habitat richness, the only published floristic study of the area is that of Willing & Willing (2006, 2008). Two more studies of the vegetation and phytogeography of the mountains of Sterea Ellas, including Mt Goulinas, have been published by Barbéro & Quézel (1976) and Phitos (1960). A few records of Orchids have been published by Künkele (1983), Hölzinger & al. (1985) and Tsiftsis & Antonopoulos (2017).

This study tries to fill the gap in knowledge of the incompletely explored flora of Mt Goulinas by presenting a floristic catalogue of all vascular plant records of the first author together with literature records.
Materials and methods

**Study area** – Mt Goulinas is located in south-central Greece (Sterea Ellas), in the west part of Fthiotida prefecture. The mountain lies between 38° 49’ 20’’ and 38° 56’ 32’’ N of latitude and 21° 57’ 26’’ and 22° 12’ 05’’ E of longitude, and covers an area of 16,210 ha that ranges from 100 to 1459 m in elevation (Fig. 1). The study area is restricted among the rivers Sperchios, Inachos and Roustianitis. The dominant geological formation is flysch (consisted mainly of sandstone), while limestones and scree slope deposits occur, to a small extent, in the central part of the mountain, close to the highest summit (Kallergis & al. 1970). The climate is Mediterranean with wet, mild winters and dry, hot summers. According to Köppen climatic classification, the lower elevations belong to the Csa type, while the higher to the Csb (Samaras & al. 2008).

The most abundant vegetation type in the study area is the deciduous oak forest and scrub, dominated by *Quercus pubescens* in the lower elevations and *Q. frainetto* in the middle and higher elevations. Other deciduous trees like *Q. petraea* subsp. *polycarpa*, *Castanea sativa* and *Ostrya carpinifolia* can be found locally on north facing slopes in clumps or in mixture with *Q. frainetto*. In the higher elevations, above the oak forests, on north and north-east facing slopes can be found the Greek fir (*Abies cephalonica*) forest. In the highest elevations, above the timberline, forest fires, overgrazing and illegal logging...
have lead to degradation and the replacement of forests by prickly juniper shrublands and anthropogenic, montane, dry grasslands. Extensive evergreen scrub vegetation (pseudo-macchie) dominated by *Q. coccifera* occur in the lowlands and foothills of Mt Goulinas mainly in the eastern part of the study area. Along streams and rivers the riparian vegetation consists mainly of the tree species *Platanus orientalis, Salix alba, Populus alba* and *Alnus glutinosa* and the shrubs *Nerium oleander* and *Vitex agnus-castus*.

**Data collection and analysis** – The floristic catalogue is based on collections and field observations carried out by the first author during spring, summer and autumn of 2002-2003 and 2005-2007. Published records are also included in the catalogue. Plant specimens that were collected in the field are stored in the herbarium of the Laboratory of Forest Botany-Geobotany, in the Aristotle University of Thessaloniki, Greece (TAUF). Plant identification was based on the main national and European Floras (Tutin & al. 1968-1980, 1993; Strid 1986; Strid & Tan 1991, 1997, 2002) and selected taxonomic literature (Zohary & Heller 1984; Krendl 1986-1987; Boyce 1988, 1994; Zielinski 1990; Christensen 1992; Baumann & al. 2006). The nomenclature mainly follows Dimopoulos & al. (2013). Accepted names are set in boldface italics in the floristic catalogue. Families, genera, species and subspecies are arranged alphabetically within the four main taxonomic groups: *Pteridophyta, Gymnospermae, Dicotyledoneae* and *Monocotyledoneae*. Life-form categories of taxa are coded according to Raunkiaer’s classification system as was modified by Dimopoulos & al. (2013). Chorological types of taxa are based on the system established for the checklist of vascular plants of Greece (Dimopoulos & al. 2013).

**Collection localities** – Collection sites (Fig. 1) are coded with numbers (locality codes). The locality codes of all specimens collected in the field are given in the floristic catalogue, in boldface, before the collection number. Information about the date of collection, the exact coordinates, the altitude and the habitat of the site is given below:

1: 38º 52’ 29” / 22º 07’ 43” – 570 m a.s.l. – 5/1/2002 – Forest of *Quercus pubescens*
2: 38º 52’ 47” / 22º 07’ 19” – 610 m a.s.l. – 5/4/2002 – Forest of *Q. frainetto*
3: 38º 52’ 56” / 22º 07’ 06” – 640 m a.s.l. – 5/7-27/2002, 7/10/2002 – Mixed forest of *Q. frainetto-Q. pubescens*
4: 38º 52’ 29” / 22º 05’ 54” – 990 m a.s.l. – 7/9/2002 – Forest of *Abies cephalonica*
5: 38º 52’ 53” / 22º 07’ 01” – 650 m a.s.l. – 7/11/2002 – Forest of *Q. frainetto*
6: 38º 52’ 58” / 22º 06’ 55” – 630 m a.s.l. – 7/12/2002 – Forest of *Q. frainetto*
7: 38º 52’ 52” / 22º 06’ 48” – 660-680 m a.s.l. – 7/13-16/2002, 6/22/2003 – Forest of *Q. frainetto*
10: 38º 52’ 54” / 22º 06’ 55” – 660-670 m a.s.l. – 7/18-19/2002 – Mixed forest of *Q. frainetto-Q. pubescens*
11: 38º 52’ 23” / 22º 05’ 50” – 1010 m a.s.l. – 7/22-26/2002 – Forest of *Abies cephalonica*
12: 38º 52’ 20” / 22º 05’ 38” – 1010 m a.s.l. – 6/19/2003 – Forest of *A. cephalonica*
13: 38º 52’ 17” / 22º 05’ 24” – 1020 m a.s.l. – 6/21/2003 – Forest of *A. cephalonica*
14: 38º 52’ 33” / 22º 05’ 56” – 960-990 m a.s.l. – 6/23-24/2003 – Forest of *A. cephalonica*
15: 38º 53’ 22” / 22º 07’ 40” – 460 m a.s.l. – 4/29/2005 – Forest of *Q. pubescens*
16: 38º 53’ 11” / 22º 07’ 20” – 560 m a.s.l. – 4/30/2005, 04/19/2006 – Meadow next to mixed forest of *Q. pubescens-Q. frainetto* / Mixed forest of *Q. pubescens-Q. frainetto*
17: 38º 52’ 17” / 22º 07’ 55” – 520 m a.s.l. – 5/2/2005 – Forest of *Q. frainetto*
18: 38° 53’ 44” / 22° 05’ 15” – 570 m a.s.l. – 5/3/2005 – Forest of *Q. frainetto*/Roadside in *Q. frainetto* forest

19: 38° 52’ 51” / 22° 08’ 08” – 460 m a.s.l. – 5/4/2005 – Forest of *Q. frainetto*

20: 38° 52’ 45” / 22° 08’ 14” – 450 m a.s.l. – 5/4/2005 – Mixed forest of *Q. pubescens-Q. frainetto*

21: 38° 53’ 11” / 22° 07’ 41” – 460-470 m a.s.l. – 5/5/2005 – Forest of *Q. pubescens*

22: 38° 52’ 57” / 22° 08’ 50” – 380 m a.s.l. – 6/7/2005 – Forest of *Q. pubescens*

23: 38° 53’ 19” / 22° 08’ 54” – 320 m a.s.l. – 6/7/2005 – Forest of *Q. pubescens* / Clearing in *Q. pubescens* forest

24: 38° 54’ 09” / 22° 05’ 42” – 470 m a.s.l. – 6/8/2005 – Forest of *Q. frainetto*

25: 38° 53’ 59” / 22° 05’ 33” – 530 m a.s.l. – 6/8/2005 – Forest of *Q. frainetto*

26: 38° 53’ 32” / 22° 05’ 07” – 630 m a.s.l. – 6/9/2005 – Forest of *Q. frainetto*

27: 38° 53’ 11” / 22° 05’ 07” – 650 m a.s.l. – 6/10/2005, 4/28/2006 – Forest of *Q. frainetto*

28: 38° 53’ 06” / 22° 07’ 26” – 690 m a.s.l. – 6/10/2005 – Forest of *Q. frainetto*

29: 38° 53’ 06” / 22° 02’ 16” – 640 m a.s.l. – 6/11/2005 – Forest of *Q. frainetto*

30: 38° 53’ 04” / 22° 00’ 33” – 560 m a.s.l. – 6/11/2005 – Forest of *Q. frainetto*

31: 38° 53’ 15” / 22° 01’ 15” – 530 m a.s.l. – 6/15/2005 – Forest of *Q. frainetto*

32: 38° 53’ 18” / 22° 03’ 20” – 440 m a.s.l. – 6/15/2005 – Forest of *Q. frainetto*

33: 38° 53’ 28” / 22° 03’ 00” – 470 m a.s.l. – 6/16/2005 – Forest of *Q. frainetto*

34: 38° 53’ 15” / 22° 03’ 20” – 680 m a.s.l. – 6/16/2005 – Forest of *Q. frainetto*

35: 38° 53’ 03” / 22° 03’ 32” – 710 m a.s.l. – 6/17/2005 – Mixed forest of *Q. frainetto-Castanea sativa-Q. petraea*

36: 38° 53’ 18” / 22° 00’ 44” – 530 m a.s.l. – 6/16/2005 – Forest of *Q. frainetto*

37: 38° 53’ 03” / 22° 03’ 32” – 710 m a.s.l. – 6/17/2005 – Mixed forest of *Q. frainetto-Castanea sativa-Q. petraea*

38: 38° 53’ 18” / 22° 03’ 34” – 590 m a.s.l. – 6/17/2005 – Forest of *Q. frainetto*

39: 38° 53’ 16” / 22° 05’ 31” – 710 m a.s.l. – 6/18/2005 – Mixed forest of *Q. frainetto-Q. petraea*

40: 38° 53’ 44” / 22° 05’ 27” – 630 m a.s.l. – 6/18/2005 – Forest of *Q. frainetto*

41: 38° 52’ 58” / 22° 01’ 00” – 570 m a.s.l. – 6/20/2005 – Forest of *Q. frainetto*

42: 38° 53’ 15” / 22° 05’ 57” – 780 m a.s.l. – 6/21/2005 – Forest of *Q. frainetto*

43: 38° 53’ 13” / 22° 05’ 25” – 840 m a.s.l. – 6/21/2005 – Forest of *Q. petraea*

44: 38° 52’ 45” / 22° 04’ 56” – 870 m a.s.l. – 6/22/2005 – Forest of *A. cephalonica*

45: 38° 51’ 48” / 22° 02’ 16” – 800 m a.s.l. – 6/23/2005 – Forest of *Q. frainetto*

46: 38° 52’ 04” / 22° 01’ 55” – 840 m a.s.l. – 6/23/2005 – Forest of *Castanea sativa*

47: 38° 52’ 38” / 21° 59’ 55” – 770 m a.s.l. – 6/24/2005 – Forest of *Q. frainetto*

48: 38° 53’ 10” / 21° 59’ 14” – 710 m a.s.l. – 6/24/2005 – Forest of *Q. frainetto*

49: 38° 52’ 43” / 22° 02’ 41” – 850-920 m a.s.l. – 6/25/2005 – Mixed forest of *Q. petraea-Q. frainetto-Castanea sativa*

50: 38° 52’ 48” / 22° 02’ 57” – 900 m a.s.l. – 6/25/2005 – Mixed forest of *Castanea sativa-Q. frainetto-Q. petraea*

51: 38° 52’ 22” / 22° 01’ 48” – 790 m a.s.l. – 6/26/2005 – Mixed forest of *Ostrya carpinifolia-Q. frainetto*

52: 38° 50’ 50” / 22° 02’ 53” – 900 m a.s.l. – 6/28/2005 – Forest of *Q. frainetto*

53: 38° 51’ 08” / 22° 02’ 31” – 1000 m a.s.l. – 6/28/2005 – Forest of *Q. frainetto*

54: 38° 52’ 06” / 21° 59’ 23” – 1030 m a.s.l. – 6/29/2005 – Forest of *Q. frainetto*

55: 38° 52’ 10” / 21° 59’ 13” – 1070 m a.s.l. – 6/29/2005 – Mixed forest of *Q. petraea-Abies cephalonica-Castanea sativa*

56: 38° 53’ 20” / 21° 59’ 08” – 660 m a.s.l. – 7/3/2005 – Forest of *Q. frainetto*

57: 38° 53’ 04” / 21° 58’ 53” – 750 m a.s.l. – 7/4/2005 – Forest of *Q. frainetto*

58: 38° 52’ 48” / 21° 58’ 46” – 840 m a.s.l. – 7/4/2005 – Forest of *Q. frainetto*
59: 38° 52’ 34” / 21° 58’ 48” – 910 m a.s.l. – 7/4/2005 – Mixed forest of *Q. petraea-Castanea sativa-Q. frainetto*

60: 38° 52’ 04” / 22° 01’ 01” – 800 m a.s.l. – 7/5/2005 – Forest of *Q. frainetto*

61: 38° 51’ 51” / 22° 05’ 53” – 750 m a.s.l. – 7/5/2005 – Forest of *Q. frainetto*

62: 38° 51’ 58” / 22° 00’ 27” – 830 m a.s.l. – 7/6/2005 – Forest of *Q. frainetto*

63: 38° 52’ 01” / 22° 00’ 06” – 860 m a.s.l. – 7/6/2005 – Forest of *Q. frainetto*

64: 38° 51’ 28” / 22° 02’ 57” – 970 m a.s.l. – 7/7/2005 – Mixed stand of *Platanus orientalis-Q. frainetto* / Roadside in *Q. frainetto* forest

65: 38° 51’ 31” / 22° 02’ 33” – 920 m a.s.l. – 7/7/2005 – Mixed forest of *Q. petraea-Q. frainetto*

66: 38° 52’ 55” / 22° 06’ 01” – 810 m a.s.l. – 7/8/2005 – Forest of *Abies cephalonica*

67: 38° 52’ 47” / 22° 05’ 36” – 840 m a.s.l. – 7/8/2005 – Forest of *A. cephalonica*

68: 38° 52’ 29” / 22° 01’ 37” – 890 m a.s.l. – 7/10/2005 – Mixed forest of *C. sativa-Q. petraea*

69: 38° 52’ 46” / 22° 03’ 03” – 920 m a.s.l. – 7/11/2005 – Mixed forest of *C. sativa-Q. petraea*

70: 38° 52’ 26” / 22° 00’ 40” – 870 m a.s.l. – 7/12/2005 – Forest of *Q. frainetto*

71: 38° 52’ 13” / 22° 01’ 13” – 900 m a.s.l. – 7/12/2005 – Forest of *Q. frainetto*

72: 38° 53’ 07” / 22° 05’ 13” – 910 m a.s.l. – 7/13/2005 – Mixed forest of *A. cephalonica-Q. petraea*

73: 38° 52’ 50” / 22° 05’ 11” – 1070 m a.s.l. – 7/13/2005 – Mixed forest of *A. cephalonica-Q. petraea*

74: 38° 52’ 30” / 22° 04’ 12” – 1030-1040 m a.s.l. – 7/18/2005 – Roadside / Clearing in *A. cephalonica-Q. petraea* forest / Mixed forest of *A. cephalonica-Q. petraea*

75: 38° 52’ 33” / 22° 04’ 26” – 980 m a.s.l. – 7/18/2005 – Forest of *Q. frainetto*

76: 38° 51’ 37” / 22° 06’ 58” – 1060 m a.s.l. – 4/19/2006 – Forest of *Q. frainetto* / Clearing in *Q. frainetto* forest

77: 38° 52’ 23” / 22° 03’ 24” – 1100 m a.s.l. – 7/20-23/2005 – Forest of *Q. petraea* / Mixed forest of *Q. petraea-Castanea sativa Q. frainetto*

78: 38° 52’ 17” / 22° 03’ 38” – 1110 m a.s.l. – 7/22/2005 – Mixed forest of *Q. petraea-A. cephalonica*

79: 38° 53’ 07” / 22° 05’ 13” – 910 m a.s.l. – 7/13/2005 – Mixed forest of *Q. petraea-Q. frainetto*

80: 38° 52’ 48” / 22° 03’ 13” – 980 m a.s.l. – 7/20/2005 – Forest of *Q. petraea-Mixed forest of Q. petraea-Castanea sativa-Q. frainetto*

81: 38° 52’ 23” / 22° 03’ 24” – 1100 m a.s.l. – 7/20-23/2005 – Forest of *Q. petraea* / Mixed forest of *Q. petraea-Castanea sativa*

82: 38° 52’ 35” / 22° 03’ 18” – 1030 m a.s.l. – 7/21/2005 – Forest of *Q. petraea*

83: 38° 52’ 12” / 22° 04’ 15” – 1200 m a.s.l. – 7/22/2005 – Forest of *A. cephalonica*

84: 38° 52’ 17” / 22° 03’ 38” – 1110 m a.s.l. – 7/22/2005 – Mixed forest of *Q. petraea-A. cephalonica*

85: 38° 53’ 22” / 22° 07’ 25” – 520 m a.s.l. – 4/26/2006 – Forest of *Q. pubescens*

86: 38° 53’ 14” / 22° 07’ 17” – 540 m a.s.l. – 4/26/2006 – Forest of *Q. pubescens*

87: 38° 53’ 24” / 22° 07’ 05” – 470 m a.s.l. – 4/27/2006 – Forest of *Q. pubescens*

88: 38° 53’ 13” / 22° 09’ 16” – 350 m a.s.l. – 4/27/2006 – Forest of *Q. pubescens*

89: 38° 53’ 15” / 22° 07’ 03” – 530 m a.s.l. – 4/29/2006 – Forest of *Q. pubescens*

90: 38° 53’ 15” / 22° 07’ 31” – 1460 m a.s.l. – 6/12/2007 – Rocky slope

91: 38° 52’ 03” / 22° 06’ 10” – 1060 m a.s.l. – 6/12/2007 – Rocky meadow

92: 38° 52’ 50” / 22° 02’ 43” – 850 m a.s.l. – 6/25/2005 – Mixed forest of *Q. frainetto-Q. petraea-Castanea sativa*

93: 38° 52’ 22” / 22° 04’ 09” – 1100 m a.s.l. – 7/22/2005 – Roadside in *A. cephalonica* forest / Mixed forest of *A. cephalonica-Q. petraea*

94: 38° 54’ 11” / 22° 05’ 48” – 430 m a.s.l. – 5/7/2005 – Roadside

95: 38° 52’ 55” / 22° 08’ 34” – 310 m a.s.l. – 5/4/2005 – Roadside in meadow

96: 38° 54’ 16” / 22° 07’ 03” – 280 m a.s.l. – 4/24/2006 – Roadside

97: 38° 54’ 10” / 22° 07’ 03” – 250 m a.s.l. – 7/5/2005 – Roadside in meadow

98: 38° 52’ 19” / 22° 04’ 17” – 1140 m a.s.l. – 7/22/2005 – Forest of *A. cephalonica*

99: 38° 53’ 36” / 22° 05’ 14” – 610-620 m a.s.l. – 5/7/2005 – Roadside in *Q. frainetto* forest
Results

Floristic catalogue – The following abbreviations and symbols are used in the floristic catalogue:
+ : new record
* : literature report not confirmed
● : greek endemic
obs. : observed in the field (no collection available)
s.lat. : sensu lato
s.n. : without number
{=..} : synonym
{“..”} : misapplied name or misidentification
Sam. : leg. D. Samaras (TAUF), followed by collection number
B&Q : Barbéro & Quézel
PTERIDOPHYTA

ASPLENIACEAE
+ *Asplenium adiantum-nigrum* L. - H, Pt. - 5 (Sam.1), 24 (Sam.610), 87 (Sam.1189)
  *Asplenium onopteris* L. - H, ME - B&Q (1976:15), 87 (Sam.1188), 92 (Sam.847)
+ *Asplenium trichomanes* subsp. *quadrivalens* D. E. Mey. - H, EA - 92 (Sam.848)

DENNSTAEDTIACEAE
+ *Pteridium aquilinum* (L.) Kuhn subsp. *aquilinum* - G, Co - 4 (Sam.2)

DRYOPTERIDACEAE
+ *Polystichum setiferum* (Forssk.) Woynar - G, EA - 65 (Sam.942)

OPHIOGLOSSACEAE
+ *Ophioglossum vulgatum* L. - G, Ct - 64 (Sam.940)

SPERMATOPHYTA – GYMNOSPERMAE

CUPRESSACEAE

PINACEAE
+ ● *Abies cephalonica* Loudon - P, Endem. - 4 (Sam.46), 11 (Sam.47), 93 (Sam.1072), 76 (Sam.1088)

TAXACEAE
+ *Taxus baccata* L. - P, EA - 99 (Sam.1067)

SPERMATOPHYTA – ANGIOSPERMAE

DICOTYLEDONEAE

ACANTHACEAE
+ *Acanthus spinosus* L. - H, Me - obs.

ACERACEAE
+ *Acer campestre* L. - P, EA - 3 (Sam.70), 4 (Sam.71), 27 (Sam.648), 87 (Sam.1192)
+ *Acer monspessulanum* L. subsp. *monspessulanum* - P, ME - 1 (Sam.72), 3 (Sam.73), 10 (Sam.74), 88 (Sam.1203)

AMARANTHACEAE
* *Amaranthus albus* L. - T, X - W&W (2006:37)
* *Amaranthus blitoides* S. Watson - T, X - W&W (2006:37)
* *Amaranthus caudatus* L. - T, X - W&W (2006:38)

**ANACARDIACEAE**
*Cotinus coggygria* Scop. - P, EA - B&Q (1976:15), 95 (Sam.566)
*Pistacia terebinthus* L. subsp. *terebinthus* - P, Me - B&Q (1976:15), 15 (Sam.411), 88 (Sam.1200), 95 (Sam.567)

**APIACEAE** (**UMBELLIFERAE**)
+ **Anthriscus sylvestris** subsp. *nemorosus* (M. Bieb.) Koso-Pol. - H, Pt - 12 (Sam.155), 65 (Sam.943)
+ **Bunium ferulaceum** Sm. - G, EM. - 2 (Sam.167)
+ **Bupleurum glumaceum** Sm. - T, Bk - 91 (Sam.1364)
+ **Chaerophyllum nodosum** (L.) Crantz {= *Myrrhoides nodosa* (L.) Cannon} - T, MS - 3 (Sam.170), 67 (Sam.957b)
+ **Dichoropetalum vittijugum** (Boiss.) Pimenov & Kljuykov {= *Peucedanum vittijugum* Boiss.} - H, Bk - 7 (Sam.156), 28 (Sam.662), 88 (Sam.1199)
+ **Eryngium campestre** L. - H, EA - 13 (Sam.175), 15 (Sam.419)
+ **Ferulago sylvatica** (Besser) Rchb. subsp. *sylvatica* - H, BI - 53 (Sam.869)
  + **Geocaryum capillifolium** (Guss.) Coss. - G, BI - B&Q (1976:29), 2 (Sam.171), 3 (Sam.172), 4 (Sam.173), 12 (Sam.174), 16 (Sam.451), 17 (Sam.470), 24 (Sam.618)
+ **Oenanthe pimpinelloides** L. s.lat. - H, EA - 3 (Sam.168, Sam.169), 17 (Sam.469), 19 (Sam.506), 22 (Sam.585), 86 (Sam.1181)
+ **Opopanax chironium** (L.) W.D.J. Koch - H, ME - 88 (Sam.1205)
+ **Orlaya daucoides** (L.) Greuter - T, MS - 15 (Sam.409), 42 (Sam.774), 45 (Sam.814), 87 (Sam.1185), 89 (Sam.1219), 96 (Sam.550), 97 (Sam.1124)
+ **Scandix pecten-veneris** L. - T, EA - 96 (Sam.549)
+ **Selinum silaifolium** (Jacq.) Beck {= *Cnidium silaifolium* (Jacq.) Simonkai} - H, ME - 4 (Sam.176), 13 (Sam.177), 18 (Sam.488), 24 (Sam.619), 27 (Sam.653)
+ **Smyrnium perfoliatum** subsp. *rotundifolium* (Mill.) Hartvig - H, Me - 3 (Sam.164, Sam.165), 10 (Sam.166)
+ **Tordylium apulum** L. - T, Me - 97 (Sam.1128), 98 (Sam.581)
+ **Torilis africana** Spreng. {= *T. arvensis* subsp. *purpurea* (Ten.) Hayek} - T, ME - W&W (2008:154), 1 (Sam.158), 2 (Sam.159), 3 (Sam.160, Sam.161), 6 (Sam.162), 12 (Sam.163), 16 (Sam.450), 56 (Sam.894), 85 (Sam.1154), 87 (Sam.1191)
+ **Torilis leptophylla** (L.) Rchb. f. - T, EA - 90 (Sam.1393)

**APOCYNACEAE**
+ **Nerium oleander** L. - P, Me - obs.
+ **Vinca major** L. subsp. *major* - C, ME - obs.

**AQUIFOLIACEAE**
+ **Ilex aquifolium** L. - P, ME - 83 (Sam.1056)
**ARALIACEAE**

+ *Hedera helix* L. subsp. *helix* - P, ME - 3 (Sam.75), 5 (Sam.76), 11 (Sam.77)

**ARISTOLOCHIACEAE**

+ *Aristolochia elongata* (Duch.) E. Nardi - G, Bk - 3 (Sam.3), 13 (Sam.4), 15 (Sam.435)
+ *Aristolochia rotunda* subsp. *insularis* (Nardi & Arrigoni) Gamisans - G, ME - 3 (Sam.5)

**ASTERACEAE (COMPOSITAE)**

+ *Achillea grandifolia* Friv. - H, BA - 84 (Sam.1081)
+ *Achillea nobilis* subsp. *neilreichii* (A. Kern.) Velen. - H, EA - 90 (Sam.1394)
+ *Aetheorhiza bulbosa* (L.) Cass. s.lat. - G, Me - 15 (Sam.418)
+ *Anthemis tinctoria* subsp. - H, Bk - 24 (Sam.617)
+ *Bellis annua* L. subsp. *annua* - T, Me - 1 (Sam.260)
+ *Carduus pycnocephalus* L. - H, ME - W&W (2008:64)
+ *Carpinella corymbosa* subsp. *graeca* (Heldr. & Sartori) Nyman - H, BA - 3 (Sam.267), 10 (Sam.268), 14 (Sam.269), 15 (Sam.425), 22 (Sam.595), 85 (Sam.1278), 88 (Sam.1196), 89 (Sam.1230), 54 (Sam.876)
+ *Centaurea pichleri* Boiss. - H, BA - 78 (Sam.1027)
+ *Cichorium intybus* L. - H, EA - W&W (2008:72), 85 (Sam.1274)
+ *Crepis fraasii* Sch. Bip. subsp. *fraasii* - H, EM - 2 (Sam.272), 3 (Sam.273), 4 (Sam.274), 12 (Sam.275), 13 (Sam.276), 22 (Sam.601)
+ *Crepis neglecta* L. s.lat. (“Crepis capillaris (L.) Walk.”) - T, BI - W&W (2008:77)
+ *Crepis setosa* Haller f. - T, EA - W&W (2008:77)
+ *Crupina crupinastrum* (Moris) Vis. - T, EA - 90 (Sam.1402)
+ *Doronicum orientale* Hoffm. - G, EA - B&Q (1976:29), 3 (Sam.277), 11 (Sam.278, Sam.279), 16 (Sam.456)
+ *Glebionis segetum* (L.) Fourr. (= *Chrysanthemum segetum* L.) - T, Me - W&W (2008:72)
+ *Helminthotheca ecoides* (L.) Holub (= *Picris echioides* L.) - T, Me - W&W (2008:124)
+ *Hieracium bracteolatum* subsp. *reinholdii* (Boiss.) Zahn - H, Endem. - 24 (Sam.616), 35 (Sam.734), 41 (Sam.764), 48 (Sam.1280), 57 (Sam.899)
+ *Hypochaeris achyrophora* L. - T, Me - W&W (2008:98)
+ *Lactuca hispida* DC. (= *Cephalorhynchos tuberosus* (Steven) Schcian) - G, EA - 51 (Sam.850)
+ *Lactuca muralis* (L.) Gaertn. (= *Mycelis muralis* (L.) Dumort.) - H, Pt - 11 (Sam.290)
+ *Lapsana communis* subsp. *adenophora* (Boiss.) Rech. f. - H, BA - B&Q (1976:29), 52 (Sam.856), 64 (Sam.937), 70 (Sam.969), 72 (Sam.979), 84 (Sam.1077)
Leontodon tuberosus L. - H, Me - W&W (2006:76), 1 (Sam.289), 15 (Sam.423), 19 (Sam.509), 31 (Sam.689), 88 (Sam.1202), 89 (Sam.1228)


Pilosella bauhini subsp. magyrica (Peter) S. Bräut. in Greuter & Raus (= Hieracium bauhini Schult.) - H, EA - 3 (Sam.280), 12 (Sam.282), 76 (Sam.1003), 89 (Sam.1233)

Pilosella cymosa subsp. sabina (Sebast.) H.P. Fuchs - H, EB - 13 (Sam.285), 81 (Sam.1042)

Ptilostemon strictus (Ten.) Greuter in Greuter & Rech. - H, BI - 11 (Sam.270), 35 (Sam.733), 42 (Sam.780), 48 (Sam.788, 1281)

Rhagadiolus stellatus (L.) Gaertn. - T, Me - 1 (Sam.291), 7 (Sam.292), 15 (Sam.293), 16 (Sam.454)


Scorzoneroides cichoriacea (Ten.) Greuter in Greuter, Gutermann & Talavera (= Leontodon cichoriaceus (Ten.) Sanguin.) - G, Me - 2 (Sam.286), 3 (Sam.287, Sam.288), 16 (Sam.455), 18 (Sam.490), 19 (Sam.510), 22 (Sam.600), 28 (Sam.1264), 85 (Sam.1172)

Senecio vulgaris L. - T, Pt - W&W (2006:91)

Sonchus asper (L.) Hill subsp. asper - T, Pt - W&W (2008:148), 100 (Sam.568)

Symphyotrichum squamatum (Spreng.) G.L. Nesom (= Aster squamatus (Spreng.) Hieron.) - CH - W&W (2006:44)


BETULACEAE

Carpinus orientalis Mill. subsp. orientalis - P, EA - 3 (Sam.6), 68 (Sam.960), 74 (Sam.985), 76 (Sam.1001)

Ostrya carpinifolia Scop. - P, MS - 41 (Sam.763), 64 (Sam.932), 81 (Sam.1083), 100 (Sam.571)

Alnus glutinosa (L.) Gaertn. subsp. glutinosa - P, ES - 130 (Sam.564)

Corylus avellana L. - P, EA - 64 (Sam.944)

BORAGINACEAE

Alkanna calliensis Boiss.- H, Endem. - 91 (Sam.1378), 123 (Sam.559)

Anchusa undulata subsp. hybrida (Ten.) Bég. - H, Me - 90 (Sam.1391)

Buglossoides purpurocaerulea (L.) I. M. Johnst. - H, EA - 3 (Sam.258, Sam.259), 15 (Sam.427), 102 (Sam.529)


Myosotis ramosissima Rochel subsp. ramosissima - T, EA - 1 (Sam.252), 2 (Sam.253), 3 (Sam.254), 15 (Sam.428), 30 (Sam.677), 31 (Sam.691), 32 (Sam.692), 42 (Sam.771), 78 (Sam.1024)

Myosotis sylvatica subsp. cyanea (Hayek) Vestergren - H T, Me - B&Q (1976:29), 4 (Sam.255), 11 (Sam.256), 12 (Sam.257), 42 (Sam.778), 43 (Sam.788), 44 (Sam.795), 45 (Sam.816), 51 (Sam.851), 53 (Sam.870), 65 (Sam.944), 69 (Sam.964), 74 (Sam.988), 75 (Sam.991), 76 (Sam.999), 80 (Sam.1037), 81 (Sam.1044), 82 (Sam.1048), 83 (Sam.1064)

Neatostema apulum (L.) I. M. Johnst. - T, Me - obs.

Symphytum bulbosum K. F. Schimp. - G, Me - B&Q (1976:29), 1 (Sam.250), 13 (Sam.251)

BRASSICACEAE (CRUCIFERAE)

Aethionema saxatile subsp. graecum (Boiss. & Spruner) Hayek - C, BA - 90 (Sam.1415)
+ Alliaria petiolata (M. Bieb.) Cavara & Grande - H, Pt - 70 (Sam.972)
+ Alyssum montanum subsp. repens (Baumg.) Schmalh. - C, ME - 90 (Sam.1416)
+ Alyssum simplex Rudolphi (¼ Alyssum minus (L.) Rothm.) - T, ES - 97 (Sam.1125), 125 (Sam.1137)
+ Arabis collina Ten. - H, Me - 73 (Sam.984)
+ Arabis glabra (L.) Bernh. - H, Eu - 91 (Sam.1365)
+ Arabis turrita L. - H, EA - 51 (Sam.849)
+ Arabis verna (L.) R. Br. in W. T. Aiton - T, Me - 79 (Sam.1250)
+ Cardamine bulbifera (L.) Crantz - G, Eu - 64 (Sam.939)
+ Cardamine graeca L. - T, Me - 2 (Sam.7), 14 (Sam.8)
+ Cardamine hirsuta L. - T, Co - 2 (Sam.9), 11 (Sam.10), 16 (Sam.463)
+ Draba muralis L. - T, ME - 85 (Sam.1163), 78 (Sam.1023)
+ ● Erysimum asperulum Boiss. & Heldr. in Boiss. - H, Endem. - 91 (Sam.1366)
+ Erysimum microstylum Hausskn. - H, Bk - 90 (Sam.1417)
+ Lepidium draba L. subsp. draba - G, H, Co - 111 (Sam.575)
+ Nasturtium officinale R. Br. - H, Co - 120 (Sam.533)
* Rapistrum rugosum (L.) All. - T, EA - W&W (2008:135), 103 (Sam.s.n.), 105 (Sam.538)
* Sisymbrium officinale (L.) Scop. - T, ES/[Co] - W&W (2008:147), 105 (Sam.539)

CAESALPINIACEAE

CAMPANULACEAE
* Campanula ramosissima Sm. - T, Me - W&W (2008:63)
* Campanula sparsa subsp. sphaerothrix (Griseb.) Hayek - T, Bk - B&Q (1976:29)
+ Campanula spatulata subsp. spruneriana (Hampe) Hayek - G, Bk - 1 (Sam.263), 2 (Sam.264), 3 (Sam.265), 12 (Sam.266), 44 (Sam.794), 84 (Sam.1080), 29 (Sam.1270)
+ Campanula trachelium subsp. athoa (Boiss. & Heldr.) Hayek - H, Bk - B&Q (1976:29), 41 (Sam.765), 84 (Sam.1076)
+ Legousia speculum-veneris (L.) Chaix - T, ME - 90 (Sam.1405)

CAPRIFOLIACEAE
+ Lonicera etsucsa Santi - P, Me - 21 (Sam.525), 3 (Sam.262)
* Lonicera implexa Aiton - P, Me - B&Q (1976:15)

CARYOPHYLLACEAE
+ Arenaria serpyllifolia L. - T, EA - 14 (Sam.11)
+ Cerastium brachypetalum subsp. roeseri (Boiss. & Heldr.) Nyman - T, Me - 31 (Sam.686), 32 (Sam.697), 54 (Sam.875), 77 (Sam.1012), 78 (Sam.1020)
+ Cerastium brachypetalum subsp. tenoreanum (Ser.) Soó - T, Eu - 16 (Sam.461), 28 (Sam.659), 85 (Sam.1174)
+ Cerastium glomeratum Thuill. - T, Co - 104 (Sam.376)
+ Dianthus viscidus Bory & Chaub - H, BA - 7 (Sam.398)
+ Petrorhagia illyrica (L.) P. W. Ball & Heywood subsp. illyrica - H, Bk - 91 (Sam.1375)
+ Minuartia recurva subsp. condensata (C. Presl) Greuter & Burdet - H C, ME - 90 (Sam.1418)
+ Minuartia hybrida (Vill.) Schischk in Kom. - T, EA - 90 (Sam.1420)
+ Moehringia pentandra J. Gay - T, Me - 67 (Sam.958)
+ **Moenchia mantica** (L.) Bartl. - T, ME - 31 (Sam.685), 54 (Sam.874), 105 (Sam.546)
+ **Petrohragia dubia** (Raf.) G. López & Romo - T, Me - 90 (Sam.1419), 105 (Sam.544)
+ **Petrohragia obcordata** (Margot & Reut.) Greuter & Burdet - T, BA - 91 (Sam.1371)
+ **Lychnis coronaria** (L.) Desr. {= **Silene coronaria** (L.) Clairv.} - H, MS - 35 (Sam.729)
+ **Silene conica** L. - T, EA - 90 (Sam.1422)
+ **Silene cretica** L. - T, Me - 105 (Sam.545)
+ **Silene italica** (L.) Pers. subsp. **italica** - H, EA - B&Q (1976:29), 2 (Sam.12), 4 (Sam.14), 12 (Sam.13), 28 (Sam.1259)
+ **Silene multicaulis** Guss. subsp. **multicaulis** - H, BI - 84 (Sam.1073)
+ **Silene viridiflora** L. - H, ES - 56 (Sam.892)
+ **Silene vulgaris** subsp. **bosniaca** (Beck) Greuter, Burdet & Long - H, Me - 12 (Sam.15)
+ **Stellaria cupaniana** Jord. & Fourn. - T, Me - 1 (Sam.20), 2 (Sam.21), 15 (Sam.433), 16 (Sam.460), 17 (Sam.478), 18 (Sam.496), 28 (Sam.1257), 87 (Sam.1183), 89 (Sam.1221)
+ **Stellaria media** (L.) Vill. - T H, Co - 3 (Sam.17), 4 (Sam.18), 11 (Sam.19), 18 (Sam.495), 43 (Sam.785a), 45 (Sam.817), 53 (Sam.867), 78 (Sam.1245), 79 (Sam.1249), 85 (Sam.1168), 87 (Sam.1187), 16 (Sam.1241)
+ **Velezia rigida** L. - T, MS - 91 (Sam.1380)

**CHENOPODIACEAE**

* **Chenopodium album** L. - T, Co - W&W (2008:71)
* **Chenopodium opulifolium** Sehrad. - T, EA - W&W (2006:53)
* **Chenopodium vulneraria** L. - T, EA - W&W (2006:54)
* **Dysphania ambrosioides** (L.) Mosyakin & Clemants {= **Chenopodium ambrosioides** L.} - T H, X - W&W (2006:52)

**CISTACEAE**

* **Cistus creticus** L. subsp. **creticus** - C, Me - B&Q (1976:15), 5 (Sam.78), 19 (Sam.507)
+ **Cistus salvifolius** L. - C, Me - 106 (Sam.565)
+ **Helianthemum nummularium** (L.) Mill. subsp. **nummularium** - C, Me - 107 (Sam.1099)
+ **Tuberaria guttata** (L.) Fourn. - T, MA - 113 (Sam.1208)

**CONVOLVULACEAE**

+ **Convolvulus arvensis** L. - H G, Co - 90 (Sam.1388)
+ **Cuscuta brevistyla** A. Rich. - T, ST - 42 (Sam.773)

**CORNACEAE**

+ **Cornus mas** L. - P, EA - 3 (Sam.79)

**CRASSULACEAE**

+ **Sedum amplexicaule** subsp. **tenuifolium** (Sm.) Greuter - C H, Me - 14 (Sam.22), 25 (Sam.630), 52 (Sam.863), 90 (Sam.1382)
+ **Sedum cepaea** L. - T, Me - 30 (Sam.682), 35 (Sam.739), 44 (Sam.800), 57 (Sam.898)
+ **Sedum hispanicum** L. - H C, EA - 90 (Sam.1384)
+ **Umbilicus luteus** (Huds.) Webb & Berthel. - G, Me - 82 (Sam.1051)
CUCURBITACEAE

DIPSACACEAE
* Knautia integrifolia (L.) Bertol. subsp. integrifolia - T, Me - W&W (2008:99)
+ Pterocephalus plumosus (L.) Coult. - T, MS - 91 (Sam.1367)

ERICACEAE
+ Hypopitys monotropa Crantz subsp. monotropa {= Monotropa hypopitys L.} - G, Bo - 41 (Sam.769)

EUPHORBIACEAE
+ Euphorbia apios L. - G, Me - 3 (Sam.80, Sam.81), 24 (Sam.622)
+ Euphorbia peplus L. - T, Co - 15 (Sam.410), 88 (Sam.1197)
+ Euphorbia phymatosperma subsp. cernua (Coss. & Durieu) Vindt - T, Me - 17 (Sam.468), 32 (Sam.698), 36 (Sam.742), 56 (Sam.893)

FABACEAE
+ Astragalus glycyphyllos subsp. glycyphylloides (DC.) Maire & Petitm. - C, BA - 44 (Sam.849)
+ Astragalus pelecinus (L.) Barneby - T, Me - 125 (Sam.1149)
+ Bituminaria bituminosa (L.) C.H. Stirt. - H, ME - 97 (Sam.1129)
  Chamaecytisus hirsutus (L.) Link subsp. hirsutus {= C. triflorus (Lam.) Skalická} - C, Eu - B&Q (1976:29), 7 (Sam.97), 35 (Sam.725)
+ Colutea arborescens L. subsp. arborescens - P, EA - 100 (Sam.572)
+ Dorycnium herbaceum Vill. - H, ME - 49 (Sam.840)
  Dorycnium hirsutum (L.) Ser. - H C, Me - B&Q (1976:15), 22 (Sam.599), 23 (Sam.609)
+ Genista tinctoria L. subsp. tinctoria - C, ES - 24 (Sam.615), 30 (Sam.674), 62 (Sam.922), 111 (Sam.574)
+ Hippocrepis emerus subsp. emeroides (Boiss. & Spruner) Greuter & Burdet ex Lassen {= Coronilla emerus subsp. emeroides (Boiss. & Spruner) Lassen} - P, EM - 27 (Sam.650, 59 (Sam.906, 100 (Sam.569)
+ Hymenocarpos circinnatus (L.) Savi - T, Me - 97 (Sam.1126)
+ Lathyrus aphaca L. - T, MS - 1 (Sam.98), 3 (Sam.99), 18 (Sam.551)
+ Lathyrus cicer L. - T, MS - 103 (Sam.5130)
+ Lathyrus digitatus (M. Bieb.) Fiori in Fiori & Paol. - H, Me - 3 (Sam.100), 16 (Sam.449), 61 (Sam.918), 62 (Sam.982)
+ Lathyrus grandiflorus Sm. - H, BI - 76 (Sam.1006)
  Lathyrus laxiflorus (Desf.) Kuntze - H, EM - B&Q (1976:29), 2 (Sam.101), 3 (Sam.102), 4 (Sam.103)
+ Lathyrus niger (L.) Bernh. - H, ME - 11 (Sam.148), 25 (Sam.635), 35 (Sam.728), 44 (Sam.789)
+ Lathyrus nissolia L. - T, ME - 21 (Sam.523)
+ Lathyrus sphaericus Retz. - T, EA - 2 (Sam.104), 3 (Sam.105), 10 (Sam.106), 15 (Sam.891), 56 (Sam.408)
+ Lathyrus venetus (Mill.) Wöhlf. - H, Eu - 35 (Sam.726)
+ **Lens ervoides** (Brign.) Grande - T, Me - 107 (Sam.1100)
+ **Lotus coninbricensis** Brot. - T, Me - 125 (Sam.1148)
+ **Lotus corniculatus** L. - H, EA - 117 (Sam.707)
+ **Medicago arabica** (L.) Huds. - T, EA - 1 (Sam.107)
+ **Medicago coronata** (L.) Bartal. - T, MS - 112 (Sam.1109)
+ **Medicago disciformis** DC. - T, Me - 97 (Sam.1119)
+ **Medicago minima** (L.) Bartal. - T, Pt - 97 (Sam.1116, 1118), 107 (Sam.1102)
+ **Medicago orbicularis** (L.) Bartal. - T, MS - 97 (Sam.1115)
+ **Medicago polymorpha** L. - T, Pt - 97 (Sam.1114)
+ **Onobrychis caput-galli** (L.) Lam. - T, Me - 97 (Sam.1117), 98 (Sam.580)
+ **Ornithopus compressus** L. - T, Me - W&W (2008:120), 21 (Sam.522, Sam.555)
+ **Robinia pseudoacacia** L. - P, X - obs.
+ **Scorpiurus muricatus** L. - T, Me - 97 (Sam.1127)
+ **Securigera varia** (L.) Lassen = *Coronilla varia* L. - H, EA - 81 (Sam.1084)
+ **Spartium junceum** L. - P, Me - obs.
+ **Trifolium angustifolium** L. - T, EA - 10 (Sam.108), 21 (Sam.521), 29 (Sam.670)
+ **Trifolium arvense** L. - T, Pt - W&W (2008:156), 31 (Sam.683), 24 (Sam.612), 110 (Sam.577)
+ **Trifolium campestris** Schreb. - T, EA - 3 (Sam.109), 22 (Sam.594), 29 (Sam.659), 32 (Sam.701), 57 (Sam.897), 125 (Sam.1136)
+ **Trifolium grandiflorum** Schreb. - T, MS - 1 (Sam.127), 2 (Sam.128), 12 (Sam.129), 24 (Sam.611), 25 (Sam.631), 28 (Sam.657, Sam.1261), 29 (Sam.659), 85 (Sam.1158), 111 (Sam.573)
+ **Trifolium heldeichianum** Hausskn. - G, BA - 7 (Sam.110, Sam.399), 25 (Sam.632), 32 (Sam.695), 33 (Sam.712)
+ **Trifolium hirtum** All. - T, Me - 90 (Sam.1381)
+ **Trifolium medium** subsp. *balearicum* Velen. - G, Bk - 14 (Sam.131), 44 (Sam.793), 47 (Sam.823), 49 (Sam.833), 50 (Sam.839), 55 (Sam.885a), 71 (Sam.974), 74 (Sam.987), 80 (Sam.1036), 81 (Sam.1043), 84 (Sam.1078)
+ **Trifolium nigrescens** Viv. - T, Me - W&W (2006:100)
+ **Trifolium ochroleucum** subsp. *roseum* (C. Presl) Lassen in Greuter & Raus - H, Me - B&Q (1976:29), 2 (Sam.112), 3 (Sam.113), 12 (Sam.114), 16 (Sam.448), 19 (Sam.502), 23 (Sam.604), 25 (Sam.633), 29 (Sam.671), 30 (Sam.673), 47 (Sam.824), 48 (Sam.827), 55 (Sam.885b), 83 (Sam.1061)
+ **Trifolium pannonicum** Jacq. - G, ME - 67 (Sam.956), 78 (Sam.1026)
+ **Trifolium pratense** L. - G, BI - 24 (Sam.614), 35 (Sam.724), 36 (Sam.743)
+ **Trifolium physodes** M. Bieb. - H, Me - B&Q (1976:29), 1 (Sam.122), 2 (Sam.123), 3 (Sam.124), 12 (Sam.125), 14 (Sam.126), 26 (Sam.642)
+ **Trifolium pignantii** Fauché & Chaub. - G, Bk - B&Q (1976:29), 2 (Sam.115), 4 (Sam.116), 6 (Sam.117), 7 (Sam.118), 11 (Sam.119), 12 (Sam.120), 14 (Sam.121), 27 (Sam.649), 32 (Sam.694), 33 (Sam.713), 85 (Sam.1164), 111 (Sam.576)
+ **Trifolium pratense** L. - H, EA - W&W (2006:100)
+ **Trifolium scabrum** L. - T, EA - 91 (Sam.1374), 97 (Sam.1113)
+ **Trifolium stellatum** L. - T, Me - 19 (Sam.505), 89 (Sam.1215), 112 (Sam.1108), 21 (Sam.556)
+ **Trifolium subterraneum** L. - T, ME - 1 (Sam.130), 19 (Sam.504), 21 (Sam.520), 114 (Sam.1104)
+ **Trifolium tenuifolium** Ten. - T, EM - 24 (Sam.613), 29 (Sam.669), 42 (Sam.775), 54 (Sam.873)
+ **Trifolium tomentosum** L. - T, Me - 125 (Sam.1147)
+ *Tripodion tetraphyllum* (L.) Fourr. \(\{= Anthyllis tetraphylla\} \) - T, Me - 98 (Sam.582)

*Vicia angustifolia* L. \(\{= Vicia sativa\) (L.) Ehrh. subsp. nigra\} - T, Pt - W&W (2006:103)

+ *Vicia bithynica* (L.) - T, Me - 113 (Sam.1211)

+ *Vicia cassubica* L. - H, EA - 4 (Sam.147), 18 (Sam.487), 33 (Sam.714), 35 (Sam.727), 38 (Sam.748)


+ *Vicia grandiflora* Scop. - T, ME - W&W (2008:168), 2 (Sam.132), 3 (Sam.133, Sam.134), 7 (Sam.136, Sam.137), 10 (Sam.138), 26 (Sam.643), 28 (Sam.1258), 30 (Sam.675), 31 (Sam.684), 32 (Sam.696, Sam.700), 41 (Sam.766), 42 (Sam.772, Sam.779), 45 (Sam.813), 67 (Sam.957a), 117 (Sam.708)

+ *Vicia hirsuta* (L.) Gray - T, Pt - 2 (Sam.139), 3 (Sam.140, Sam.141), 10 (Sam.142), 15 (Sam.404), 16 (Sam.447), 18 (Sam.486), 19 (Sam.499), 21 (Sam.518)

+ *Vicia incisa* M. Bieb. \(\{= V. sativa\) L. subsp. incisa\) (M.Bieb.) Arcang.\} - T, EM - 2 (Sam.145), 3 (Sam.146), 32 (Sam.693)

+ *Vicia lathyroides* L. - T, ME - 1 (Sam.143), 3 (Sam.144), 13 (Sam.149), 15 (Sam.407), 21 (Sam.519b), 38 (Sam.747), 44 (Sam.790), 54 (Sam.871), 57 (Sam.896), 76 (Sam.1005), 77 (Sam.1010), 78 (Sam.1097), 79 (Sam.1251), 103 (Sam.s.n.), 114 (Sam.1105)

+ *Vicia pannonica* subsp. *striata* (M. Bieb) Nyman - T, ME - 103 (Sam.s.n.)

+ *Vicia pubescens* (DC.) Link - T, Me - 15 (Sam.405), 89 (Sam.1216)

+ *Vicia tenuifolia* subsp. *dalmatica* (A. Kern.) Greuter in Greuter & Raus - H, ME - 19 (Sam.500)

+ *Vicia tetrasperma* (L.) Shreb. - T, Pt - 17 (Sam.406), 19 (Sam.501), 29 (Sam.666), 34 (Sam.720)

*Vicia villosa* subsp. *varia* (Host) Corb. - T, ME - B&Q (1976:29), 105 (Sam.541)

**FAGACEAE**

*Castanea sativa* Mill. - P, Eu - B&Q (1976:29), 81 (Sam.1040), 82 (Sam.1052)

+ *Quercus cocifera* L. - P, Me - 4 (Sam.25)

+ *Quercus frainetto* Ten. - P, BA - B&Q (1976:29), 1 (Sam.26), 3 (Sam.34), 4 (Sam.37), 5 (Sam.35, Sam.36b), 7 (Sam.28), 11 (Sam.27, Sam.39), 14 (Sam.44), 24 (Sam.621), 25 (Sam.628), 26 (Sam.638), 27 (Sam.647), 89 (Sam.1212)

+ *Quercus petraea* subsp. *polycarpa* (Schur) Soó - P, Eu - 4 (Sam.29), 11 (Sam.30), 12 (Sam.31), 13 (Sam.32), 26 (Sam.639), 80 (Sam.1034, Sam.1089), 93 (Sam.1071), 115 (Sam.1086)

*Quercus pubescens* Willd. - P, ME - B&Q (1976:15), 1 (Sam.33), 5 (Sam.36a), 4 (Sam.38), 11 (Sam.40), 14 (Sam.41, Sam.43, Sam.45)

**FUMARIACEAE**

+ *Corydalis cava* (L.) Schweigg & Körte - G, EA - 78 (Sam.1094)

+ *Fumaria officinalis* L. subsp. *officinalis* - T, Pt - 105 (Sam.543)

**GENTIANACEAE**

+ *Blackstonia perfoliata* (L.) Huds. subsp. *perfoliata* - T, ME - obs.

+ *Centaurium erythraea* Rafn s.lat. - T H, EA - 24 (Sam.623, Sam.624)

**GERANIACEAE**

+ *Erodium cicutarium* (L.) L’ Hér. in Aiton - T, Ct - 90 (Sam.1397), 116 (Sam.1131)

+ *Geranium asphodeloides* Burm. f. subsp. *asphodeloides* - H, MS - 3 (Sam.82, Sam.83, Sam.84), 49 (Sam.841), 52 (Sam.855)

+ *Geranium columbinum* L. - T, EA - 1 (Sam.85), 117 (Sam.710)

+ *Geranium dissectum* L. - T, EA - 21 (Sam.553)

+ *Geranium lucidum* L. - T, EA - W&W (2008:91), 1 (Sam.86), 12 (Sam.87), 44 (Sam.799)
Geranium peloponesiacum Boiss. - H, Bk - 119 (Sam.530), 18 (Sam.489), 28 (Sam.1256), 39 (Sam.755), 44 (Sam.798), 52 (Sam.854), 79 (Sam.1030)

Geranium pusillum Burn. f. - T, EA - 15 (Sam.413)

Geranium molle L. - T, Pt - 1 (Sam.88)

Geranium purpureum Vill. - T, Me - 1 (Sam.88), 3 (Sam.90), 13 (Sam.91), 14 (Sam.92), 15 (Sam.414), 16 (Sam.453), 34 (Sam.721), 85 (Sam.1161), 89 (Sam.1231)

Geranium rotundifolium L. - T, Pt - 1 (Sam.93)

HYPERICACEAE (GUTTIFERAE)

Hypericum perfoliatum L. - H, Me - 23 (Sam.606)

Hypericum perforatum L. subsp. veronense (Schrank) A. Fröhlin. - H, Pt - W&W (2006:73), 7 (Sam.397)

Hypericum spruneri Boiss. - H, BI - 2 (Sam.95), 3 (Sam.96), 4 (Sam.94), 15 (Sam.412), 23 (Sam.605), 24 (Sam.620), 26 (Sam.641), 30 (Sam.676), 52 (Sam.862), 62 (Sam.923), 66 (Sam.950), 77 (Sam.1013)

JUGLANDACEAE

Juglans regia L. - P, ME - obs.

LAMIACEAE (LABIATAE)

Ajuga reptans L. - G, EA - 64 (Sam.936), 120 (Sam.532)


Clinopodium alpinum subsp. meridionale (Nyman) Govaerts (= Acinos alpinus subsp. meridionalis (Nyman) P.W. Ball; Satureja alpina subsp. meridionalis (Nyman) Greuter & Burdet) - H, Me - 90 (Sam.1395)

Clinopodium grandiflorum (L.) Kuntze (= Calamintha grandiflora (L.) Moench; Satureja grandiflora (L.) Scheele) - H, ME - 53 (Sam.865)

Clinopodium nepeta subsp. glandulosum (Req.) Govaerts (= Calamintha nepeta subsp. glandulosa (Req.) P.W. Ball) - H, ME - W&W (2008:62)

Clinopodium vulgare subsp. orientale Bothmer (= Satureja vulgaris subsp. orientalis (Bothmer) Greuter & Burdet, “C. vulgare subsp. arundanum (Boiss.) Nyman”) - H, Me - B&Q (1976:29), 91 (Sam.1379), 3 (Sam.239), 4 (Sam.238), 15 (Sam.429), 17 (Sam.474), 19 (Sam.512), 22 (Sam.593), 83 (Sam.1060)

Lamium bifidum subsp. balcanicum Velen. - T, Bk - 1 (Sam.246), 3 (Sam.247), 79 (Sam.1254), 87 (Sam.1186)

Lamium bifidum Cirillo subsp. bifidum - T, Me - 104 (Sam.390)

Lamium garganicum L. subsp. garganicum - H, Me - 14 (Sam.248, Sam.249), 55 (Sam.886), 65 (Sam.946), 82 (Sam.1049), 84 (Sam.1079), 122 (Sam.1098)

Lamium purpureum L. - T, EA - 104 (Sam.395)


Melissa officinalis L. subsp. officinalis - H, Me - 132 (Sam.1032)

Melitiss melissophyllum subsp. albidus (Guss.) P.W. Ball - H, Eu - B&Q (1976:29)

Mentha spicata subsp. condensata (Briq.) Greuter & Burdet (= Mentha microphylla K. Koch) - H, Me - W&W (2006:78)


Micromeria graeca (L.) Rehb. subsp. graeca - C, Me - B&Q (1976:15)

Origanum vulgare subsp. hirtum (Link) A. Terrace. - H G, BA - 1 (Sam.245), 16 (Sam.458), 21 (Sam.526), 22 (Sam.592), 52 (Sam.859)

Phlomis fruticosa L. - P, Me - 1 (Sam.244)
+ **Prunella vulgaris** L. - H, EA - 54 (Sam.877)
+ **Salvia argentea** L. - H, Me - 91 (Sam.1363)
+ **Scutellaria columnae** All. subsp. *columnae* - H, Me - 26 (Sam.645), 18 (Sam.491), 53 (Sam.866)
+ **Stachys germanica** subsp. *heldreichii* (Boiss.) Hayek - H, EM - 90 (Sam.1390)
+ ● **Stachys graeca** Boiss. & Heldr. in Boiss. {“Stachys acutifolia Bory & Chaub.”} - H, Endem. - 15 (Sam.437), 20 (Sam.516), 117 (Sam.711)
+ **Teucrium chamaedrys** L. subsp. *chamaedrys* - C, Me - 16 (Sam.464), 22 (Sam.588), 85 (Sam.1173), 91 (Sam.1377)
* **Teucrium divaricatum** Heldr. s.lat. - C, EM - B&Q (1976:15)
  + **Thymus longicaulis** subsp. *chaubardii* (Rchb. f.) Jalas {= **Thymus ocheus** Boiss.} - C, BA - B&Q (1976:29), 1 (Sam.240), 3 (Sam.241, Sam.242), 5 (Sam.243), 25 (Sam.636), 26 (Sam.644), 42 (Sam.776), 52 (Sam.858), 59 (Sam.908), 80 (Sam.1038), 90 (Sam.1385)

**LORANTHACEAE**
+ **Loranthus europaeus** Jacq. - P, EA - obs.

**MALVACEAE**

**MORINACEAE**
+ **Morina persica** L. - H, MS - obs.

**OLEACEAE**
+ **Fraxinus angustifolia** subsp. *oxyarpa* (Wild.) Franco & Rocha Afonso - P, EA - 4 (Sam.231), 11 (Sam.232), 14 (Sam.233, Sam.234, Sam.235)
+ **Fraxinus ornus** L. - P, ME - 3 (Sam.236), 14 (Sam.237), 44 (Sam.792)
  + **Phillyrea latifolia** L. - P, Me - B&Q (1976:15), 3 (Sam.230)

**ONAGRACEAE**
+ **Epilobium lanceolatum** Sebast. & Mauri - H, EA - 65 (Sam.947), 45 (Sam.812), 69 (Sam.965), 77 (Sam.1011)

**PAPAVERACEAE**

**PLANTAGINACEAE**

**PLATANACEAE**
+ **Platanus orientalis** L. - P, EM - obs.

**PLUMBAGINACEAE**

**POLYGONACEAE**
+ *Rumex acetosella* subsp. *acetoselloides* (Balansa) Nijs - H, EA - 90 (Sam.1383)

**PRIMULACEAE**
+ *Cyclamen hederifolium* Aiton subsp. *hederifolium* - G, Me - 1 (Sam.228), 3 (Sam.229), 44 (Sam.802), 85 (Sam.1275), 125 (Sam.1273)
+ *Lysimachia atropurpurea* L. - G, BA - 123 (Sam.562)
+ *Lysimachia punctata* L. - H, Eu - 35 (Sam.740), 64 (Sam.935)

**PUNICACEAE**

**RANUNCULACEAE**
+ *Anemone apennina* subsp. *blanda* (Schott & Kotschy) Nyman - G, EM - 3 (Sam.49, Sam.50), 45 (Sam.811), 52 (Sam.857), 64 (Sam.933)
+ *Anemone pavonina* Lam. - G, Me - 1 (Sam.51), 3 (Sam.52, Sam.53)
+ *Clematis flammula* L. - P, MS - 3 (Sam.54), 10 (Sam.55), 21 (Sam.527)
+ *Consolida ajacis* (L.) Schur {"Consolida ambiguа"} - T, Me - 91 (Sam.1370)
+ *Delphinium peregrinum* L. - T, MS - W&W (2006:63)
* Helleborus odoratus* subsp. *cyclophyllus* (A. Braun) Maire & Petitm. - G, Bk - B&Q (1976:29), 3 (Sam.56, Sam.57), 4 (Sam.58), 11 (Sam.59), 35 (Sam.732)
* Nigella damascena* L. - T, Me - W&W (2008:116), 90 (Sam.1400), 91 (Sam.1369)
+ *Ranunculus gracilis* E. D. Clarke - H, BA - 18 (Sam.494), 120 (Sam.535), 16 (Sam.1093)
+ *Ranunculus neapolitanus* Ten. {= *R. bulbosus* subsp. *neapolitanus* (Ten.) H. Lindb., “R. bulbosus subsp. aleae (Willk.) Rouy & Fouc.”} - H, Me - 1 (Sam.64), 3 (Sam.65, Sam.66), 6 (Sam.67), 15 (Sam.432), 120 (Sam.534a)
+ *Ranunculus paludosus* Poir. - H, ME - 3 (Sam.60, Sam.61), 15 (Sam.431), 19 (Sam.513), 85 (Sam.1153), 89 (Sam.1223)
+ *Ranunculus psilostachys* Griseb. - H, Bk - 7 (Sam.68), 17 (Sam.476), 18 (Sam.493), 85 (Sam.1160a), 16 (Sam.1239)
+ *Ranunculus velutinus* Ten. - H, Me - 17 (Sam.477), 43 (Sam.786), 78 (Sam.1025), 120 (Sam.534b)

**RHAMNACEAE**
* Paliurus spina-christi* Mill. - P, EA - B&Q (1976:15), 85 (Sam.1160b)

**ROSACEAE**
+ *Agrimonia eupatoria* L. subsp. *eupatoria* - H, EA - 3 (Sam.215), 1 (Sam.214), 15 (Sam.416), 22 (Sam.591)
* Aremonia agrimonoides* (L.) DC. subsp. *agrimonoides* - H, BC - B&Q (1976:29), 1 (Sam.209), 3 (Sam.210, Sam.211, Sam.213), 4 (Sam.212)
+ **Crataegus monogyna** Jacq. - P, Pt - 1 (Sam.204), 10 (Sam.205), 11 (Sam.206), 13 (Sam.207), 14 (Sam.208), 17 (Sam.472)
+ **Geum urbanum** L. - H, EA - 69 (Sam.967), 124 (Sam.1096)
+ **Malus sylvestris** (L.) Mill. subsp. *sylvestris* - P, Eu - 81 (Sam.1085)
+ **Potentilla inclinata** Vill. - H, EA - 35 (Sam.741), 90 (Sam.1398)
+ **Potentilla micrantha** DC. in Lam. & DC. - H, EA - B&Q (1976:29), 3 (Sam.199, Sam.200), 4 (Sam.201), 11 (Sam.202), 27 (Sam.651), 33 (Sam.715), 39 (Sam.754), 40 (Sam.760), 51 (Sam.853), 52 (Sam.861), 83 (Sam.1068)
+ **Prunus avium** (L.) - P, EA - 49 (Sam.842), 69 (Sam.962), 70 (Sam.968), 84 (Sam.1074)
+ **Prunus domestica** subsp. *insititia* (L.) Bonnier & Layens - P, EA - 3 (Sam.190), 7 (Sam.191), 11 (Sam.192, Sam.193), 13 (Sam.194), 14 (Sam.195), 17 (Sam.471), 26 (Sam.640), 34 (Sam.723), 35 (Sam.731), 52 (Sam.860), 64 (Sam.931), 65 (Sam.945), 66 (Sam.948), 76 (Sam.1002), 84 (Sam.1075)
+ **Prunus mahaleb** L. - P, EA - 4 (Sam.196), 11 (Sam.197, Sam.198), 44 (Sam.791), 49 (Sam.843), 55 (Sam.884)
+ **Pyrus communis** L. - P, EA - B&Q (1976:29)
+ **Pyrus spinosa** Forssk. {= *P. amygdaliformis* Vill.} - P, Me - 15 (Sam.417), 74 (Sam.986)
+ **Rosa arvensis** Huds. - P, Me - 3 (Sam.182, 183, 401, 402, 403), 4 (Sam.184), 7 (Sam.400), 21 (Sam.524), 45 (Sam.807a), 64 (Sam.929b), 66 (Sam.949), 82 (Sam.1054), 85 (Sam.1166), 88 (Sam.1194), 89 (Sam.1224)
+ **Rosa canina** L. - P, Pt - 10 (Sam.186), 45 (Sam.807b), 56 (Sam.889), 59 (Sam.905), 64 (Sam.930)
+ **Rosa pulverulenta** M. Bieb. {= *R. glutinosa* Sm.} - P, ME - 4 (Sam.187), 11 (Sam.189)
+ **Rosa tomentosa** Sm. in Sm. & Sowerby - C, ME - 64 (Sam.929a), 70 (Sam.970), 82 (Sam.1055), 86 (Sam.1179)
+ **Rubus canescens** DC. - P, EA - 1 (Sam.178), 2 (Sam.179), 3 (Sam.180), 4 (Sam.181), 41 (Sam.762), 64 (Sam.926), 70 (Sam.971), 80 (Sam.1035), 83 (Sam.1069)
+ **Rubus hirtus** Waldst. & Kit. - P, EA - 64 (Sam.927), 81 (Sam.1041), 83 (Sam.1058, Sam.1070)
+ **Rubus sanctus** Schreb. {= *R. ulmifolius* Schott} - P, MS - W&W (2006:88), 64 (Sam.928)
+ **Sanguisorba minor** subsp. *balearica* (Nyman) Muñoz Garm. & C. Navaro {= *S. minor* subsp. *muricata* (Bonnier & Layens) Briq.} - H, EA - 15 (Sam.415), 22 (Sam.597), 100 (Sam.570), 123 (Sam.560)
+ **Sorbus torminalis** (L.) Crantz - P, EA - B&Q (1976:29), 25 (Sam.629), 58 (Sam.904)
+ **Sorbus umbellata** (Desf.) Fritsch in A. Kern. - P, BA - 83 (Sam.1059)

**Rubiaceae**

+ **Crucianella angustifolia** L. - T, ME - 7 (Sam.296), 91 (Sam.1376)
+ **Cruciata pedemontana** (Bellardi) Ehrend. - T, EA - 7 (Sam.295)
+ **Galium aparine** L. - T, EA - 1 (Sam.297), 2 (Sam.298), 3 (Sam.299), 11 (Sam.300), 41 (Sam.768), 45 (Sam.810)
+ **Galium heldreichii** Halácsy - H, BA - 16 (Sam.457), 17 (Sam.473), 19 (Sam.511), 22 (Sam.589), 25 (Sam.634), 27 (Sam.655), 30 (Sam.680), 31 (Sam.687), 45 (Sam.808), 48 (Sam.828), 49 (Sam.845), 50 (Sam.838), 60 (Sam.912), 72 (Sam.978b), 85 (Sam.1171), 88 (Sam.1193), 89 (Sam.1226)
+ **Galium helenicum** Krendl - H, BK - 22 (Sam.590), 27 (Sam.654), 31 (Sam.688), 37 (Sam.744), 39 (Sam.753), 43 (Sam.787), 44 (Sam.805), 44 (Sam.796), 45 (Sam.809), 47 (Sam.825), 49 (Sam.844), 49 (Sam.834), 50 (Sam.837), 54 (Sam.878), 60 (Sam.911), 62 (Sam.919), 63 (Sam.924), 69 (Sam.966), 72 (Sam.978a), 73 (Sam.981), 76 (Sam.1004), 87 (Sam.1190)
+ **Galium iaconicum** Boiss. & Heldr. in Boiss. - H, BA - 72 (Sam.977)
+ **Galium rotundifolium** L. - H, EA - 17 obs.
* Rubia peregrina L. - P, MA - B&Q (1976:15)
+ Sherardia arvensis L. - T, EA - 15 (Sam.426), 125 (Sam.1146, Sam.1135), 126 (Sam.1103)

SALICACEAE
+ Populus alba L. - P, EA - obs.
+ Salix alba L. - P, EA - 130 (Sam.563)
+ Salix amplexicaulis Bory & Chaub. in Bory - P, Me - 133 (Sam.536)

SANTALACEAE
+ Thesium divaricatum Mert. & W. D. J. Koch - H, ME - 24 (Sam.625), 30 (Sam.679)
+ Viscum album subsp. abietis (Wiesb.) Abrom. in Wünsche - P, EA - obs.

SAXIFRAGACEAE
+ Saxifraga carpetana subsp. graeca (Boiss. & Heldr.) D. A. Webb - H, Me - 2 (Sam.69), 28 (Sam.658, Sam.1263), 45 (Sam.815)
+ Saxifraga rotundifolia subsp. chrysosplenifolia (Boiss.) D. A. Webb - H, Bk - 119 (Sam.531)

SCROPHULARIACEAE
+ Verbascum undulatum Lam. - H, Bk - 91 (Sam.1373)

SOLANACEAE

URTICACEAE

VERBENACEAE

VERONICACEAE
Digitalis ferruginea L. subsp. ferruginea - H, ME - B&Q (1976:29), 13 (Sam.227), 72 (Sam.975), 76 (Sam.998, Sam.1087)
+ Digitalis grandiflora Mill. - H, Eu - 55 (Sam.882)
+ Digitalis laevigata subsp. graeca (Ivanina) Werner - H, Bk - 35 (Sam.730), 55 (Sam.883), 72 (Sam.976)
* Linaria pelisseriana (L.) Mill. - T, MS - W&W (2008:104)
+ Veronica anagallis-aquatica L. subsp. anagallis-aquatica - H T, Co - 134 (Sam.1212)
+ Veronica arvensis L. - T, EA - 1 (Sam.218), 32 (Sam.702), 34 (Sam.719), 38 (Sam.749), 56 (Sam.890), 89 (Sam.1222)
• Veronica chamaedrys subsp. chamaedryoides (Bory & Chaub.) M.A. Fisch. in Strid & Tan - H, Endem. - B&Q (1976:29), 1 (Sam.219), 3 (Sam.220), Sam.221), 4 (Sam.222), 83 (Sam.1063)
+ Veronica cymbalaria Bodard - T, Me - 1 (Sam.223), 2 (Sam.224), 3 (Sam.225), 15 (Sam.430), 16 (Sam.459), 17 (Sam.475), 18 (Sam.492), 43 (Sam.785b), 79 (Sam.1255), 85 (Sam.1170)
+ Veronica hederifolia L. - T, EA - 3 (Sam.226), 78 (Sam.1243)
VALERIANACEAE
+ Valerianella carinata Loisel. - T, EA - 15 (Sam.434), 79 (Sam.1253)
+ Valerianella coronata (L.) DC. - T, EA - 90 (Sam.1421), 97 (Sam.1112)
+ Valerianella locusta (L.) Laterr. - T, EA - 2 (Sam.301), 16 (Sam.462), 29 (Sam.1266), 85 (Sam.1176)

VIOLACEAE
+ Viola aetolica Boiss. & Heldr. - H, Bk - 83 (Sam.1065)
+ Viola alba subsp. dehnhardtii (Ten.) W. Becker - H, Me - 3 (Sam.150, Sam.151), 4 (Sam.152), 10 (Sam.153), 11 (Sam.154), 46 (Sam.822)
+ Viola kitaibeliana Schultz. in Roem. & Schult. - T, ME - 90 (Sam.1399)

ZYGOXYLACEAE

SPERMATOPHYTA – ANGIOSPERMAE
MONOCOTYLEDONEAE

ALLIACEAE
+ Allium guttatum subsp. tenorei (Parl.) Soldano {= A. guttatum subsp. sardoum (Moris) Stearn} - G, Me - 3 (Sam.358), 10 (Sam.359)

AMARYLLIDACEAE
* Sternbergia lutea (L.) Spreng. subsp. lutea - G, MS - W&W (2006:97)

ARACEAE
+ Arum cylindraceum Gasp. {= A. alpinum Schott & Kotschy} - G, ME - 7 (Sam.302), 13 (Sam.303), 17 (Sam.480)

ASPARAGACEAE
Asparagus acutifolius L. - C, Me - B&Q (1976:15), 5 (Sam.360), 85 (Sam.1155)

ASPHEDELACEAE
+ Asphodelus ramosus L. subsp. ramosus {“A. aestivus Broth.”} - G, Me - 127 (Sam.552)

CYPERACEAE
+ Carex distachya Desf. - H, ME - 15 (Sam.441), 32 (Sam.699), 66 (Sam.952), 67 (Sam.959), 85 (Sam.1159)
+ Carex divulsa Stokes - H, EA - 86 (Sam.1177)
+ Carex flacca subsp. serrulata (Spreng.) Greuter in Greuter & Rech. f. - G, MS - 3 (Sam.305, Sam.304), 17 (Sam.485), 85 (Sam.1152), 86 (Sam.1178), 89 (Sam.1225)
+ Carex pendula Huds. - H, EA - 135 (Sam.558)

DIOSCOREACEAE
+ Dioscorea communis (L.) Caddick & Wilkin {= Tamus communis L.} - G, ME - 17 (Sam.479), 35 (Sam.735), 82 (Sam.1050)
HYACINTHACEAE
+ *Muscari comosum* (L.) Mill. - G, ME - 1 (Sam.361), 17 (Sam.481)

Prospero autumnale (L.) Speta - G, Me - W&W (2006:91), 125 (Sam.1271)

IRIDACEAE
+ *Iris tuberosa* L. (= *Hermodactylus tuberosus* (L.) Mill.) - G, Me - 15 (Sam.419)

JUNCACEAE
* Luzula forsteri* (Sm.) DC. - H, Me - B&Q (1976:29), 2 (Sam.357)

ORCHIDACEAE
+ *Cephalanthera longifolia* (L.) Rich. - G, EA - 14 (Sam.363), 76 (Sam.1007)
+ *Dactylorhiza romana* subsp. *romana* (= *D. sambucina* (L.) Soó subsp. *pseudosambucina* (Ten.) Sunderm.) - G, Me - 26 (Sam.646), 28 (Sam.664, Sam.1260), 29 (Sam.672, Sam.1267), 39 (Sam.756), 49 (Sam.835)
+ *Epipactis helleborine* (L.) Grantz subsp. *helleborine* - G, Pt - 45 (Sam.818), 48 (Sam.830), 75 (Sam.992), 76 (Sam.1008), 83 (Sam.994), 84 (Sam.1092)
+ *Epipactis microphylla* (Ehrh.) Sw. - G, EA - 4 (Sam.365)
+ *Limodorum abortivum* (L.) Sw. - G, Me - 44 (Sam.803)
+ *Neottinea maculata* (Desf.) Stearn - G, Me - 33 (Sam.716), 54 (Sam.881), 57 (Sam.901), 66 (Sam.951), 16 (Sam.1092)
+ *Neottia nidus-avis* (L.) Rich. - G, EA - 41 (Sam.770), 44 (Sam.804), 75 (Sam.994)
+ *Orchis anthropophora* (L.) All. - G, MA - T&A (2017)
+ *Orchis italica* Poir. in Lam. & al. - G, Me - 103 (Sam.1236), T&A (2017)
+ *Orchis provincialis* Lam. & DC. - G, ME - 28 (Sam.665), 29 (Sam.1268), 39 (Sam.758), 43 (Sam.784), 44 (Sam.801), 48 (Sam.831), 54 (Sam.880), 55 (Sam.887), 57 (Sam.900), 58 (Sam.903), 59 (Sam.909), 74 (Sam.989), 81 (Sam.1047)
+ *Platanthera chlorantha* (Custer) Rchb. in Mössler - G, ES. - 28 (Sam.663), 35 (Sam.737)

POACEAE
* Achnatherum bromoides* (L.) P. Beauv. (= *Stipa bromoides* (L.) Dörfl.) - H, Me - B&Q (1976:15), 3 (Sam.354, Sam.355), 15 (Sam.442), 16 (Sam.466), 19 (Sam.515), 22 (Sam.602), 66 (Sam.953), 89 (Sam.1229)
+ *Aegilops biuncialis* Vis. subsp. *biuncialis* (= *A. lorentii* Hochst.) - T, MS - 90 (Sam.1408)
+ *Aegilops geniculata* Roth - T, Me - 125 (Sam. 1145)
+ *Aira elegantissima* Schur - T, MS - 30 (Sam.678), 31 (Sam.690)
+ *Anthoxanthum odoratum* L. - H, Co - 5 (Sam.306), 15 (Sam.446)
Arrhenatherum elatius (L.) J. Presl & C. Presl - H, Pt - B&Q (1976:29), 2 (Sam.307), 3 (Sam.308, Sam.309), 4 (Sam.310), 12 (Sam.314)
Brachypodium pinnatum (L.) P. Beauv. - H, ES - B&Q (1976:29), 3 (Sam.318), 40 (Sam.761)
Brachypodium sylvaticum (Huds.) P. Beauv. subsp. sylvaticum - H, Pt - B&Q (1976:29), W&W (2008:59), 4 (Sam.326), 15 (Sam.443), 17 (Sam.483)
+ Briza maxima L. - T, ST - 25 (Sam.637)
* Bromus sterilis L. - T, MS - W&W (2008:61)
+ Bromus tectorum L. - T, Pt - 90 (Sam.1414)
* Catapodium rigidum (L.) C. E. Hubb. - T, Me - W&W (2008:67)
  Cynosurus echinatus L. - T, Me - W&W (2008:79), 3 (Sam.330), 5 (Sam.331)
  Cynosurus effusus Link. (= C. elegans Desf.) - T, Me - B&Q (1976:29), 4 (Sam.329), 12 (Sam.332), 15 (Sam.445), 16 (Sam.1238), 21 (Sam.528), 28 (Sam.1262), 88 (Sam.1195)
Dactylis glomerata subsp. hispanica (Roth) Nyman - H, Me - B&Q (1976:29), 1 (Sam.334), 3 (Sam.335, Sam.336), 4 (Sam.337)
+ Dasypyrum villosum (L.) P. Candargy - T, MS - 90 (Sam.1410)
+ Digitaria sanguinalis (L.) Scop. subsp. sanguinalis - T, Co - W&W (2006:63)
* Elymus caninus (L.) L. {= Agropyron caninum (L.)} - H, ES - 22 (Sam.602), 23 (Sam.607)
* Elymus panormitanus (Parl.) Tzvelev {= Roegneria panormitana (Parl.) Nevski} - H, Me - 3 (Sam.338), 46 (Sam.821)
* Eragrostis cilianensis (All.) Janch. subsp. cilianensis - T, Co - W&W (2006:68)
* Eragrostis minor Host subsp. minor - T, Co - W&W (2006:68)
+ Festuca heterophylla Lam. - H, Eu - 6 (Sam.340), 35 (Sam.738), 37 (Sam.745), 39 (Sam.759), 44 (Sam.806), 47 (Sam.826), 49 (Sam.836, Sam.846), 55 (Sam.888), 57 (Sam.902), 60 (Sam.915), 44 (Sam.806), 85 (Sam.1175), 89 (Sam.1227)
+ Festuca valesiaca subsp. valesiaca - H, EA - 14 (Sam.342), 75 (Sam.995), 78 (Sam.1028)
* Hordeum murinum L. subsp. murinum - T, MS - W&W (2008:96)
+ Koeleria lobata (M. Bieb.) Roem. & Schult. (= K. splendes C. Presl) - H, Me - 90 (Sam.1412)
  Melica uniflora Retz. - H, Pt - B&Q (1976:29), 11 (Sam.344), 14 (Sam.346)
+ Phleum phleoides (L.) H. Karst. (= P. montanum K. Koch) - H, Eurosib. - 42 (Sam.777), 54 (Sam.879), 90 (Sam.1409)
* Poa annua L. - T, Co - W&W (2008:127)
+ Poa bulbosa L. subsp. bulbosa - H, Pt - 2 (Sam.347, 12 (Sam.348), 15 (Sam.440), 16 (Sam.465), 19 (Sam.514), 28 (Sam.1265), 38 (Sam.750), 85 (Sam.1175), 89 (Sam.1227)
+ Poa trivialis subsp. sylvicola (Guss.) H. Lindb. - H, EA - 1 (Sam.349), 2 (Sam.350), 3 (Sam.351, Sam.352), 17 (Sam.498), 18 (Sam.498), 22 (Sam.603), 24 (Sam.626), 38 (Sam.751), 46 (Sam.820), 85 (Sam.1167), 85 (Sam.1218)
+ Secale strictum (C. Presl) C. Presl subsp. strictum (= S. montanum Guss.) - H, MS - 90 (Sam.1413)
* Setaria viridis (L.) P. Beauv. subsp. viridis - T, Co - W&W (2006:92)
+ Taeniatherum caput-medusae subsp. crinitum (Schreb.) Melderis - T, Me - 90 (Sam.1406)
* Tragus racemosus (L.) All. - T, Co - W&W (2006:99)

RUSCACEAE
Ruscus aculeatus L. - G C, ME - B&Q (1976:15), 2 (Sam.362)
Spectra and notes on the floristic catalogue

The so far known vascular flora of Mt Goulinas consists of 487 taxa, belonging to 81 families and 285 genera (Table 1). From these, 381 taxa were either collected or observed by the first author, while 106 literature references could not be confirmed. From the total number of taxa, 305 are reported for the first time. Among the new references we can mention *Euphorbia phymatosperma* subsp. *cernua* and *Elymus caninus*, two taxa that are reported for the first time from Sterea Ellas. *Campanula sparsa* subsp. *sphaerothrix*, although not confirmed for Mt Goulinas, was collected by the first author from the neighbour Mt Oxia (unpublished material) and therefore the report from Barbéro & Quézel (1976) may be correct. Six (6) Greek endemics are reported from Mt Goulinas, five (5) of them for the first time: *Abies cephalonica*, *Hieracium bracteolatum* subsp. *reinholdii*, *Alkanna calliensis*, *Erysimum asperulum* and

Table 1. Numbers of plant families, genera, species, subspecies and taxa in the three main taxonomic groups of the vascular flora of Mt. Goulinas.

<table>
<thead>
<tr>
<th></th>
<th>Families</th>
<th>Genera</th>
<th>Species</th>
<th>Subspecies</th>
<th>Specific and subspecific taxa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pteridophytes</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Gymnosperms</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Angiosperms</td>
<td>74</td>
<td>278</td>
<td>475</td>
<td>139</td>
<td>478</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>285</td>
<td>484</td>
<td>142</td>
<td>487</td>
</tr>
</tbody>
</table>

*Spectra and notes on the floristic catalogue* – The so far known vascular flora of Mt Goulinas consists of 487 taxa, belonging to 81 families and 285 genera (Table 1). From these, 381 taxa were either collected or observed by the first author, while 106 literature references could not be confirmed. From the total number of taxa, 305 are reported for the first time. Among the new references we can mention *Euphorbia phymatosperma* subsp. *cernua* and *Elymus caninus*, two taxa that are reported for the first time from Sterea Ellas. *Campanula sparsa* subsp. *sphaerothrix*, although not confirmed for Mt Goulinas, was collected by the first author from the neighbour Mt Oxia (unpublished material) and therefore the report from Barbéro & Quézel (1976) may be correct. Six (6) Greek endemics are reported from Mt Goulinas, five (5) of them for the first time: *Abies cephalonica*, *Hieracium bracteolatum* subsp. *reinholdii*, *Alkanna calliensis*, *Erysimum asperulum* and

Fig. 2. Life-form spectrum of the vascular flora of Mt Goulinas. P: Phanerophytes, C: Chamaephytes, H: Hemicryptophytes, G: Geophytes, T: Therophytes.
Stachys graeca. Forty eight (48) Balkan and sub-Balkan endemics are also reported, 36 of which are new records for the study area.

Hemicryptophytes and therophytes are the most abundant plant life forms in the flora of Mt Goulinas with a proportion of 34.4 % and 35 % respectively (Fig. 2). Geophytes and phanerophytes follow with 13.6 % and 12.5 % respectively, while chamaephytes are by far the less abundant (4.5 %). The most abundant chorological group of plants are the Mediterranean taxa (220 taxa – 45.2 %), followed by the Widespread taxa (198 taxa – 40.7 %) (Fig. 3). The proportion of Balkan taxa, Greek endemics and Aliens is much lower (9.9 %, 1.2 % and 3.1 % respectively).

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References


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