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The flora of Mount Boumistas (NW Sterea Ellas, Greece): Species list and chorological notes

Abstract

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The vascular flora of Mt Boumistas, part of Akarnanika Ori, comprises 502 taxa. Of these, 401 are recorded for the mountain for the first time, 31 are Greek and 32 Balkan endemics. Among the Greek endemic taxa, three (*Cerastium illyricum* subsp. *crinitum*, *Galanthus reginae-olgae* subsp. *vernalis*, *Allium callimischon*) are new records for the study area, two (*Mentha pulegium* subsp. *cephalonica* and *Scutellaria rupestris* subsp. *cephallonica*) are new additions to the flora of the Greek mainland and one is a local endemic (*Campanula gorganica* subsp. *acarnanica*). *Avena lusitanica* and *Melica cupanii* are reported as new for the Greek flora. The flora of Mt Boumistas is divided into 21 chorological groups and 22 subtypes of 6 main life forms. The high proportion (36.6%) of therophytes and prevalence of the Mediterranean element in its broad sense (57.5%) confirm the Mediterranean nature of the flora of the study area. The relatively high percentage of geophytes (15.1%) seems to be associated with the presence of man.

Introduction

A considerable number of botanical investigations on Greek mountains has been carried out recently. High mountains attract the main interest, and as a consequence many lower ones still remain unexplored or incompletely explored as to their flora and vegetation. Mount Boumistas belongs to the latter category. It is a low mountain of NW Sterea Hellas, its highest peak reaching 1577 m. It is part of the Akarnanika Ori, an extensive mountain range of Etole-Akarnania prefecture. Although several botanists have visited the mountain and collected plant material (Maire & Petitmengin, Damboldt, Phitos & Kamari, et al.), the inventories of its flora and vegetation remain so far unpublished.

Although the mountain presents a particular phytogeographical interest because of its geographical position, previous phytogeographical conclusions have not been based on the analysis of its flora as a whole. This is because its phytogeographical position is treated

under different phytogeographical regions of Greece (Strid 1986: XVII, Strid 1993: 414, Phitos & al. 1995: XXIV, Phitos & al. 1997: XII).

The present contribution is part of a Master thesis undertaken by the first author at the University of Patras. It forms the basis for a phytogeographical analysis of the flora of Mt Boumistas, which will appear as a future second contribution.

This paper's primary goal is to provide a reasonably complete account of the flora of Mt Boumistas. This fits into the larger-scale surveys of the international "Flora Hellenica" and "Euro+Med PlantBase" Projects, currently in progress, in which the Botanical Institute of Patras University participates. The knowledge of the flora and vegetation of Mt Boumistas also contributes to the mountain flora of Sterea Hellas, an area of research involving several botanists at Patras University and elsewhere (Dimitrellos & Christodoulakis 1995, 1999, Constantinidis & Yanitsaros 1996, Constantinidis 1997, Vlachos 1996, Kokmotos 1999, Karetos 2002).

The most important references to the flora of Mt Boumistas can be found in the works "Conspectus Flora Graeciae" (Halász 1901-1904) and especially in the two supplements (Halász 1908 & 1912), where the specimens of Maire & Petitmengin (1908) from their exploration of Mt Boumistas (10 July 1906), have been included. The "Mountain flora of Greece" (Strid 1986, Strid & Tan 1991) and "Flora Hellenica" (Phitos & al. 1997) are also used for reference.

Features of the study area

Mt Boumistas is situated in the central part of western mainland Greece (W Sterea Ellas) and belongs to the mountain range Akarnanika Ori. It is bordered by the villages of Panagoula (to the west), Palea and Nea Kompoti (to the northeast), Aetos (to the east), and Archontochori (to the south) (Fig. 1). Mt Boumistas lies approximately between 38° 41' and 38° 45' N latitude and between 21° 00' and 21° 05' E longitude. Its orientation is N-NE to S-SW, its lowest altitude is ca. 150 m and its highest 1577 m (Korphula peak). The main mountain mass is surrounded by some secondary peaks such as Profitis Ilias (1492 m), Sgourouri (1327 m), and Kerasia (913 m).

From a geological point of view, Mt Boumistas belongs to the Adriatic-Ionian (Ionian) geotectonic zone (IGME 1983). The largest part of the mountain consists of limestones, only small areas are covered by schists or cherts (mainly to the south), and flysch formations (to the east and north). In some places, conglomerates, breccias and screes are also encountered (IGME 1986, 1987).

As a result of its altitudinal range, different climate types prevail on Mt Boumistas. Since no exact meteorological data exist, we depend on those from the nearest weather stations, Agrinio city and Levkas island. According to the ombrothermic diagram of Agrinio (Fig. 2) and Levkas (Fig. 3), as well as their xerothermic indexes ($X = 82.41$ and $X = 84.04$, respectively), the climate of both stations can be characterised as intense Meso-Mediterranean ($75 < X < 100$, UNESCO - F.A.O. 1963).

From a vegetation analysis and according to Mavrommatis (1980), it can be hypothesized that the lower parts of Mt Boumistas belong to the Meso-Mediterranean bioclimatic type, which at its northern end reaches an altitude of ca. 800 m. This bioclimatic type covers most of

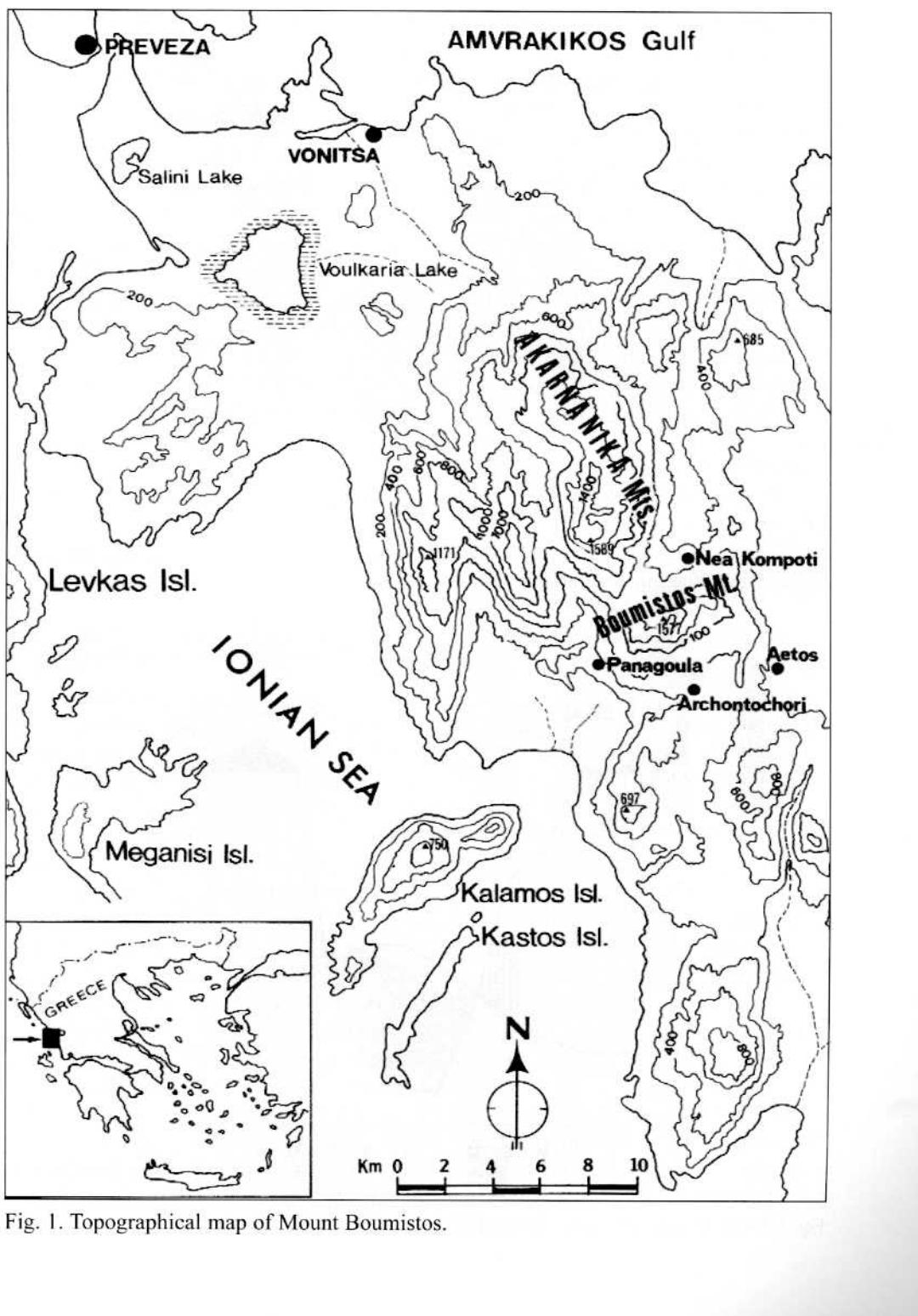


Fig. 1. Topographical map of Mount Boumistas.

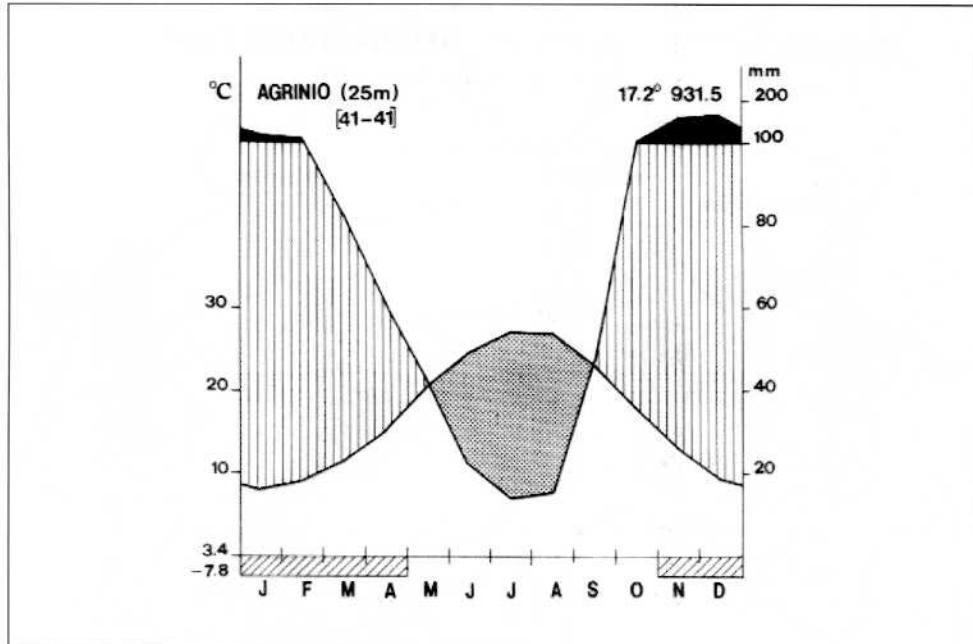


Fig. 2. Ombrothermic diagram of Agrinio city.

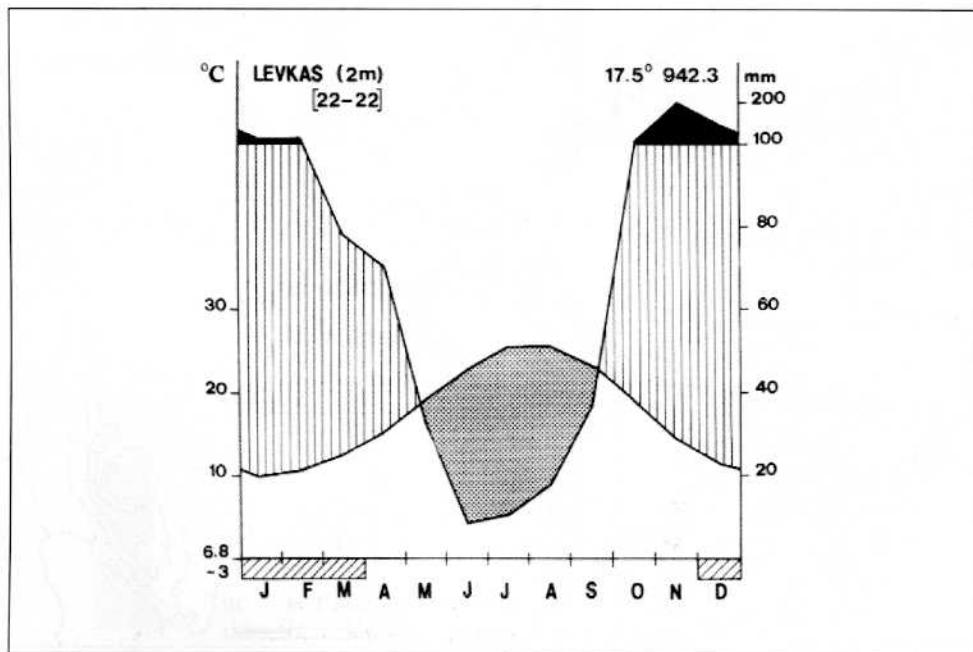


Fig. 3. Ombrothermic diagram of Levkas island.

the study area, the vegetation being characterized by the dominance of Quercion ilicis and Ostryo-carpinion formations. At altitudes of 800-1000 (-1100) m, the climate becomes mild Meso-Mediterranean, as shown by the dominant formations of Quercion confertae and also Ostryo-carpinion. At higher altitudes (> 1100 m) deciduous oak and *Abies cephalonica* formations dominate. This vegetation type suggests a Supra-Mediterranean climate.

Materials and methods

This study is based on collections and field observations made mainly by the first author from spring 1997 to summer 2000. Roughly 1000 specimens were collected during different parts of the year and from various places. Voucher specimens are deposited at the Botanical Museum of the University of Patras (UPA).

Plant nomenclature follows Flora europaea (Tutin & al. 1968-1980 and Tutin & al. 1993), Med-Checklist (Greuter & al. 1984-1989), Mountain flora of Greece (Strid 1986, Strid & Tan 1991) and Flora hellenica (Phitos & al. 1997). The life-form categories follow the system of Raunkjaer (1934). The classification of the chorological types is in accordance with Pignatti (1982), with extra information on oriental taxa provided by Davis (1965).

The plant list includes bibliographical references. The sequence of families, genera and species in the list is alphabetical.

Plant list

Abbreviations and symbols used:

Life-forms: see Table 2

Chorology: see Table 3

obs.: observation only, no herbarium specimens collected

!: herbarium specimens kept in UPA, checked by the authors, other than Vlachos's.

*: new record

Hal.: Halácsy

M. & P.: Maire & Petitmengin

PTERIDOPHYTA

Polypodiaceae

**Anogramma leptophylla* (L.) Link: Thaeaesp, Cosmop.; *Vlachos* 311.

**Asplenium ceterach* L.: Hros, Paleotemp.; *Vlachos* 54, *Damboldt* s.n.!, 104/71.

**A. onopteris* L.: Hros, Med.-Atl.; *Damboldt* 147/71!, 171/71!

**A. trichomanes* L. subsp. *quadrivalens* D. E. Meyer: Hros, Cosmop.; *Vlachos* 57.

Dryopteris pallida (Bory) Maire & Petitmengin subsp. *pallida* (*Nephrodium pallidum* Bory): Grhiz,

Eu. Med.; (M. & P. 1908: 238, Hal. 1908: 116) *Vlachos* 1001.

GYMNOSPERMÆ**Cupressaceæ**

**Juniperus oxycedrus* L. subsp. *oxycedrus*: Phcaesp, Eu. Med.; *Vlachos* 16, 28.

Pinaceæ

Abies cephalonica J.W. Loudon (*A. cephalonica* var. *apolinis* (Link) Beissner): Phscap, Greek; (M. & P. 1908: 233, Hal. 1908: 115 & 1912: 91) *Vlachos* 82, 436.

ANGIOSPERMÆ**DICOTYLEDONES****Aceraceæ**

Acer monspessulanum L. ("*A. monspessulanum* var. *microphyllum*"): Phcaesp, Eu. Med.; (M. & P. 1908: 56) *Vlachos* obs.

Anacardiaceæ

**Pistacia lentiscus* L.: Phcaesp, St. Med.; *Vlachos* 86.

**P. terebinthus* L.: Phcaesp., Eu. Med.; *Vlachos* obs.

Apiaceæ

**Anthriscus tenerrima* Boiss. & Spruner: Thscap, E. Med.; *Vlachos* 113, 613.

**Bupleurum glumaceum* Sm.: Thscap, Balkan; *Vlachos* 278, 345, 741.

Eryngium amethystinum L. (*E. multifidum* Sm.); Hscap, E. Med.; (M. & P. 1908: 91, Hal. 1908: 41).

**Ferulago nodosa* (L.) Boiss.: Hscap, E. Med.; *Damboldt* 140/71!, *Vlachos* 665.

**F. sylvatica* (Besser) Reichenb. subsp. *sylvatica*: Hscap, Europ.(SE)-S. Siber.; *Vlachos* 251, 727.

**Lagoecia cuminoides* L.: Thscap, Med.-Turan.; *Vlachos* 341, 775.

**Malabaila aurea* (Sm.) Boiss.: Hbienn, E. Med.; *Vlachos* 313, 715.

Oenanthe pimpinelloides L. (*O. incrassans* Bory & Chaub.): Hscap, Med.-Atl.; (M. & P. 1908: 95, Hal. 1908: 44) *Vlachos* 605.

**Opopanax chironium* (L.) Koch: Hscap, St. Med.; *Vlachos* 1003.

**Orlaya daucoides* (L.) Greuter: Thscap, Eu. Med.; *Vlachos* 668.

**Pimpinella peregrina* L.: Hbienn, Eu. Med.; *Vlachos* 764.

**P. tragium* Vill. subsp. *tragium*: Chsuffr, Med.-Turan.; *Vlachos* 265, 800.

Scaligeria cretica (Miller) Boiss.: Hbienn, E. Med.; (M. & P. 1908: 96, Hal. 1908: 44).

**Scandix australis* L. subsp. *grandiflora* (L.) Thell.: Thscap, Eu. Med.; *Strid & al.* 29507!, *Vlachos* 140, 171, 194, 365, 408.

**S. macrorhyncha* C.A. Meyer: Thscap, Subcosmop.; *Vlachos* 666.

Selinum silaifolium (Jacq.) G. Beck (*Cnidium silaifolium* (Jacq.) Simonkai): Hscap, Europ. (SE); (M. & P. 1908: 94, Hal. 1908: 43, Strid 1986: 703).

**Smyrnium perfoliatum* L. subsp. *rotundifolium* (Miller) Hartvig: Hbienn, St. Med.; *Vlachos* 217, 754.

**Tordylium apulum* L.: Thscap, St. Med.; *Vlachos* 342.

**T. officinale* L.: Thscap, E. Med.; *Vlachos* 172, 337, 369.

**Torilis arvensis* (Hudson) Link subsp. *purpurea* (Ten.) Hayek: Thscap, Eu. Med.; *Vlachos* 286, 398.

**T. nodosa* (L.) Gaertner: Thscap, Med.-Turan.; *Vlachos* 644.

Turgenia latifolia (L.) Hoffm.: Thscap, Eu. Med.; (M. & P. 1908: 92, Hal. 1908: 42).

Araliaceae

Hedera helix L. subsp. *helix*: Phlian, Med.-Atl.(Eu.); (M. & P. 1908: 100) *Vlachos* 83.

Aristolochiaceae

**Aristolochia elongata* (Duchartre) Nardi: Grad, Balkan; *Vlachos* 10, 54.

Asteraceae (Compositae)

Achillea fraasii Schultz Bip.: Hscap, E. Med.; (M. & P. 1908: 115, Hal. 1908: 55, Strid & Tan 1991: 441) *Strid & al. 29510!*, *Vlachos* 396.

A. holosericea Sm.: Hscap, Balkan; (M. & P. 1908: 115, Hal. 1908: 55).

**Anthemis arvensis* L. subsp. *arvensis*: Thscap, Subcosmop.; *Vlachos* 658.

**A. chia* L.: Thscap, E. Med.; *Vlachos* 7, 70, 368, 690.

A. cretica L. subsp. *columnae* (Ten.) Franzén: Hscap, Oref. Europ. (S.); (Strid & Tan 1991: 424).

**Asteriscus spinosus* (L.) Less: Hscap, Eu. Med.; *Vlachos* 760.

Bellis perennis L.: Hros, Circumbor.; (M. & P. 1908: 111, Hal. 1908: 52) *Vlachos* 48, 67, 82.

**Calendula arvensis* L.: Thscap, Eu. Med.; *Vlachos* 595, 636.

Carduus macrocephalus Desf. ("C. nutans"): Hbienn, St. Med.; (M. & P. 1908: 122, Hal. 1908: 58).

Centaurea alba L. subsp. *subciliaris* (Boiss. & Heldr.) Dostál (*C. subciliaris* Boiss. & Heldr.): Hscap, Greek; (M. & P. 1908: 129, Hal. 1912: 54) *Phitos & Kamari* 11311!, *Damboldt & Matthäs* 4/71!, *Vlachos* 395.

**C. cyanus* L.: Thscap, Subcosmop.; *Vlachos* 12.

C. deustiformis Adamović: Hscap, Balkan; (Strid & Tan 1991: 506).

C. lacerata (Hausskn.) Halácsy (*C. affinis* subsp. *lacerata* (Hausskn.) Maire & Petitmengin): Hscap, Greek; (M. & P. 1908: 130, Hal. 1908: 60, Strid & Tan 1991: 499) *Vlachos* 796.

**C. spruneri* Boiss. & Heldr. subsp. *guicciardii* (Boiss.) Hayek: Hscap, Balkan; *Damboldt* 112/71!

**Chondrilla juncea* L.: Hscap, Paleotemp.; *Vlachos* 842.

**Crepis fraasii* Schultz Bip. subsp. *fraasii*: Hscap, E. Med.; *Vlachos* 225.

**C. neglecta* L. subsp. *corymbosa* (Ten.) Nyman: Thscap, E. Med.; *Vlachos* 176, 303, 363, 651.

C. neglecta L. subsp. *neglecta*: Thscap, E. Med.; (Kamari 1976: 18) *Phitos & Kamari* 11300b!, 11288!, 11317!, Kamari & al. 20673!, *Vlachos* 787.

C. rubra L.: Thscap, E. Med.; (M. & P. 1908: 136, Hal. 1912: 58) *Vlachos* 137.

**C. sancta* (L.) Bornm.: Thscap, Med.-Turan.; *Vlachos* 388, 402, 654.

**Dittrichia graveolens* (L.) W. Greuter: Thscap, Med.-Turan.; *Vlachos* 890.

**Doronicum austriacum* Jacq.: Grhiz, Oref. Europ. (S.); *Strid* 29533!

**D. columnae* Ten.: Grhiz, Oref. Europ. (SE.-)Caucas.; *Vlachos* 431.

**D. orientale* Hoffm.: Grhiz, Oref. Europ. (SE.-)Caucas.; *Vlachos* 240, 625.

**Evax pygmaea* (L.) Brot. subsp. *pygmaea*: Thrept, St. Med.; *Vlachos* 709.

**Filago pyramidata* L.: Thscap, Eu. Med.; *Vlachos* 648, 779, 794.

**Hedypnois cretica* (L.) Dum.-Courset: Thscap, St. Med.; *Vlachos* 638.

Hieracium cymosum L. subsp. *subinum*(Sebastiani) Naegeli & Peter (*H. cymosum* var. *canopilosum* Arvet-Touvet): Hscap, Europ.; (M. & P. 1908: 138, Strid & Tan 1991: 614) *Vlachos* 226, 728.

**Hypochoeris achyrophorus* L.: Thscap, St. Med.; *Vlachos* 261, 281, 781.

**H. cretensis* (L.) Bory & Chaub.: Hscap, E. Med.; *Vlachos* 290, 366, 367.

**Imula verbascifolia* (Willd.) Hausskn. subsp. *verbascifolia*: Chsuffr, E. Med.; *Vlachos* 828.

Lapsana communis L.: Thscap, Paleotemp.; (M. & P. 1908: 132, Hal. 1912: 56) *Vlachos* obs.

**Leontodon crispus* Vill. subsp. *asper* (Waldst. & Kit.) Rohlena: Hros, Europ. (SE.-)Caucas.; *Vlachos* 382, 423.

L. graecus Boiss. & Heldr. (*L. asper* subsp. *graecus* (Boiss. & Heldr.) Maire & Petitmengin): Hros, Greek; (M. & P. 1908: 133, Hal. 1908: 62) *Vlachos* 118, 662.

**L. tuberosus* L.: Hros, St. Med.; *Vlachos* 13, 37, 80, 177, 606.

**Matricaria recutita* L.: Thscap, Subcosmop.; *Vlachos* 637.

Mycelis muralis (L.) Dumort. (*Lactuca muralis* L.): Hscap, Europ.-Caucas.; (M. & P. 1908: 135, Hal. 1908: 68).

**Notobasis syriaca* (L.) Cass.: Thscap, St. Med.; *Vlachos* obs.

**Phagnalon saxatile* (L.) Cass.: Chsuffr, W. Med.; *Vlachos* 346, 725, 899.

**Picnomon acarna* (L.) Cass.: Thscap, St. Med.; *Vlachos* 839.

**Picris altissima* Delile: Thscap, St. Med.; *Vlachos* 272, 762.

Ptilostemon afer (Jacq.) Greuter subsp. *afer* (*Cirsium afrum* (Jacq.) DC.): Hbienn, Balkan; (M. & P. 1908: 127, Hal. 1908: 59).

**P. chamaepeuce* (L.) Less.: Chfrut, E. Med.; *Vlachos* 103, 726.

**Pulicaria dysenterica* (L.) Bernh.: Hscap, Eu. Med.; *Vlachos* 832.

**Reichardia picroides* (L.) Roth: Hscap, St. Med.; *Vlachos* 830.

**Rhagadiolus stellatus* (L.) Gaertner: Thscap, Eu. Med.; *Vlachos* 138, 322.

**Scorzonera laciniata* L.: Hbienn, Paleotemp.; *Vlachos* 655, 673.

**S. mollis* M. Bieb. subsp. *mollis*: Gbulb, E. Med.; *Vlachos* 1007.

**Senecio vernalis* Waldst. & Kit.: Thscap, Euras.; *Vlachos* 8, 185, 615, 658, 691.

**Sonchus asper* (L.) Hill subsp. *glaucescens* (Jordan) Ball: Hbienn, Paleotemp.; *Vlachos* 361.

**Staehelina unijulosculosa* Sm.: Chfrut, Balkan; *Phitos & Kamari* 11314!, *Damboldt* 164/71!, *Vlachos* 1004.

Tanacetum corymbosum (L.) Schultz Bip. subsp. *Cinereum* (Gris.) Hayek (*Pyrethrum cinereum* Gris.): Hscap, Europ.-S. Siber.; (M. & P. 1908: 117, Hal. 1908: 56).

**Taraxacum hellenicum* Dahlst.: Hros, Eu. Med.; *Vlachos* 687.

Tragopogon balcanicus Velen. (*T. crocifolius* subsp. *balcanicus* (Velen.) Hal.): Hbienn, E. Med.; (M. & P. 1908: 134, Hal. 1912: 57).

**Urospermum picroides* (L.) Scop.: Thscap, Eu. Med.; *Vlachos* 274, 359, 653, 693, 698, 713.

**Xanthium spinosum* L.: Thscap, Cosmop.; *Vlachos* 838.

Betulaceae

**Carpinus orientalis* Miller: Phcaesp, Europ. (SE.)-S. Siber.; *Vlachos* obs.

Ostrya carpinifolia Scop.: Phscap, E. Med.; (M. & P. 1908: 200) *Damboldt* s.n.!, 105/71!, 63/75!, *Zouridis* 20!, *Tzanoudakis* 2010!, *Phitos & Kamari* 11336!, 11345!, *Vlachos* 391.

Boraginaceae

**Alkanna corcyrensis* Hayek: Hscap, Balkan; *Vlachos* 58, 142.

**Anchusa cretica* Miller: Thscap, E. Med.; *Vlachos* 6, 30, 609.

**Cerinthe retorta* Sm.: Thscap, E. Med.; *Vlachos* 74, 149.

**Cynoglossum columnae* Ten.: Thscap, E. Med.-Mont.; *Vlachos* 628.

**Echium italicum* L.: Hscap, Eu. Med.; *Vlachos* obs.

**E. plantagineum* L.: Thscap, Eu. Med.; *Vlachos* 1020.

**Heliotropium europaeum* L.: Thscap, Med.-Turan.; *Damboldt* 170/71!, *Phitos & Kamari* 11376!

**H. halácsyi* Riedl: Thscap, Greek; *Damboldt* 103/71!, *Phitos & Kamari* 11287!, 11376a!

Lithospermum incrassatum Guss. (*Buglossoides arvensis* subsp. *gasparrinii* (Guss.) R. Fernandes): Thscap, Med.-Mont.; (M. & P. 1908: 155, Hal. 1908: 76, Strid & Tan 1991: 26) *Vlachos* 401, 730.

**Myosotis arvensis* Hill: Thscap, Eurosiber.; *Vlachos* 419.

- **M. congesta* R.J. Shuttlew.: Thscap, St. Med.; *Vlachos* 206.
- **M. refracta* Boiss. subsp. *refracta*: Thscap, St. Med.; *Vlachos* obs.
- M. refracta* Boiss. subsp. *paucipilosa* Grau: Thscap, E. Med.; (Strid & Tan 1991: 52).
- **M. suaveolens* Willd.: Hscap, Balkan; *Vlachos* 432.
- **M. stricta* Roemer & Schultes: Thscap, Eu. Med.; *Vlachos* 110, 209.
- M. sylvatica* Hoffm. subsp. *cyanea* (Hayek) Vestergren: Hscap, E. Med.; (Strid & Tan 1991: 53)
Damboldt 167/71!
- **Onosma heterophylla* Griseb.: Chsuffr, E. Med.; *Vlachos* 827.
- **Sympyrum bulbosum* C. Schimper: Grhiz, Europ. (SE.); *Vlachos* 622.

Campanulaceae

- Asyneuma limonifolium* (L.) Janchen subsp. *Limonifolium* (*Podanthum limonifolium* (L.) Boiss.): Hscap, E. Med.; (M. & P. 1908: 148, Hal. 1908: 71, Strid & Tan 1991: 391) Kamari & al. 20654!
- **Campanula drabifolia* Sm.: Thscap, Greek; *Vlachos* 289, 302, 757.
- C. gorganica* Ten. subsp. *acarnanica* (Damboldt) Damboldt ("*C. cephalenica*"): Hscap, Greek; (M. & P. 1908: 147, Hal. 1908: 71, Phitos & Damboldt 1985: 179).
- **C. ramosissima* Sm.: Thscap, E. Med.; *Vlachos* 1002.
- C. spatulata* Sm. subsp. *spatulata* (*C. sibthorpiana* Halász), *C. spruneri* subsp. *spruneriana* (Hal. Maire & Petitmengin): Grhiz, Balkan; (M. & P. 1908: 147, Hal. 1908: 71) *Vlachos* 227, 269.
- **C. versicolor* Andrews: Hscap, E. Med.–Mont.; *Vlachos* 900.
- Edraianthus graminifolius* (L.) A. DC. (*E. graminifolius* var. *australis* Wettst.): Chsuffr, E. Med.; (M. & P. 1908: 149, Hal. 1908: 72, Strid & Tan 1991: 395) Strid et al. 29531!
- **Legousia falcata* (Ten.) Janchen: Thscap, St. Med.; *Vlachos* 310.
- **L. speculum-veneris* (L.) Chaix: Thscap, Eu. Med.; *Vlachos* 162, 207.

Caprifoliaceae

- Lonicera nummulariifolia* Jaub. & Spach subsp. *nummulariifolia*: Phaeasp, E. Med.; (M. & P. 1908: 102, Hal. 1908: 46) *Vlachos* obs.

Caryophyllaceae

- **Arenaria leptoclados* (Reichenb.) Guss.: Thscap, Paleotemp.; *Vlachos* 631.
- **A. serpyllifolia* L.: Thscap, Subcosmop.; *Vlachos* 675.
- Cerastium brachypetalum* Pers. subsp. *roeseri* (Boiss. & Heldr.) Nyman (*C. luridum* (Boiss.) Lonsing): Thscap, Eu. Med.; (M. & P. 1908: 47, Hal. 1908: 20) *Vlachos* 35, 188.
- C. candidissimum* Correns ("*C. tomentosum*"): Chsuffr, Greek; (M. & P. 1908: 46, Hal. 1908: 20, Strid 1986: 113) Tzanoudakis 2028!, *Vlachos* 406.
- **C. glomeratum* Thuill.: Thscap, Subcosmop.; *Vlachos* 21.
- **C. illyricum* Ard. subsp. *crinitum* (Lonsing) P.D. Sell & Whitehead: Thscap, Greek; *Vlachos* 373, 407.
- Dianthus biflorus* Sm. (*D. biflorus* subsp. *samaritanii* (Halász) Maire & Petitmengin, *D. samaritanii* Halász): Hscap, Greek; (M. & P. 1908: 46, Hal. 1908: 19, Strid 1986: 190).
- **D. giganteus* Urv.: Hscap, E. Med.; Tzanoudakis 1933!
- **D. pinifolius* Sm.: Chsuffr, E. Med.; Zouridis 6!, *Vlachos* 807.
- **Herniaria hirsuta* L.: Thscap, Paleotemp.; Damboldt 114/71!
- Minuartia attica* (Boiss. & Spruner) Vierh. subsp. *attica* ("*Alsine verna*", "*M. verna* var. *gerardi*"): Chsuffr, E. Med.; (M. & P. 1908: 49, Hal. 1908: 20) *Vlachos* 416, 736.
- **M. hamata* (Hausskn. & Bornm.) Mattf.: Thscap, Eu. Med.; *Vlachos* 405.

- **M. hybrida* (Vill.) Schischkin: Thscap, Paleotemp.; *Vlachos* 116.
- **M. mediterranea* (Link) K. Malý: Thscap, Eu. Med.; *Vlachos* 891.
- **M. mesogitana* (Boiss.) Hand.-Mazz. subsp. *mesogitana*: Thscap, E. Med.; *Vlachos* 890.
- Paronychia albatica* Chaudhri subsp. *graeca* Chaudhri ("*P. chionaea*"): Hcaesp, Greek; (M. & P. 1908: 85, Hal. 1908: 39) *Damboldi* 136/71!, 146/71!, *Zouridis* 11! *Tzanoudakis* 2006! *Vlachos* 734.
- **Petrorhagia illyrica* (Ard.) P.W.Ball & Heywood subsp. *illyrica*: Hcaesp, Balkan; *Zouridis* 10!, *Tzanoudakis* 1997!, *Vlachos* 795.
- **P. obcordata* (Margot & Reuter) Greuter & Burdet: Thscap, Balkan; *Vlachos* 788.
- **P. saxifraga* (L.) Link: Hcaesp, Eu. Med.; *Phitos & Kamari* 11362! *Tzanoudakis* 2016! *Vlachos* 398.
- Saponaria calabrica* Guss.: Thscap, E. Med.; (M. & P. 1908: 43) *Tzanoudakis* 1181!, *Vlachos* 40, 124, 197.
- **Scleranthus verticillatus* Tausch.: Thscap, Eu. Med.; *Vlachos* obs.
- **Silene caesia* Sm.: Grhiz, Balkan; *Tzanoudakis* 2017!
- S. graeca* Boiss. & Spruner: Thscap, Balkan; (Greuter 1995: 136) *Vlachos* 694.
- S. ionica* Halász: Hscap, Greek; (M. & P. 1908: 40, Hal. 1908: 16, Phitos & al. 1997: 272).
- S. italica* (L.) Pers. subsp. *italica*: Hros, Eu. Med.; (Greuter 1995: 110) *Vlachos* 602.
- S. radicosa* Boiss. & Heldr.: Hscap, Balkan; (M. & P. 1908: 41, Hal. 1908: 18Strid 1986: 144).
- S. ungeri* Fenzl: Thscap, Balkan; (Phitos & al. 1997: map 586) *Vlachos* 151, 621.
- S. vulgaris* (Moench) Gärcke: Grhiz, Subcosmop.; (Phitos & al. 1997: map 527) *Vlachos* 410.
- **Stellaria cupaniana* (Jordan & Fourr.) Béguinot: Thrept, E. Med.; *Vlachos* 115, 191, 228, 597.
- **S. media* (L.) Vill.: Thrept, Cosmop.; *Vlachos* 664.

Cistaceae

- **Cistus creticus* L.: NPh, St. Med.; *Vlachos* 159, 305, 747.
- **Fumana arabica* (L.) Spach: Chsuffr, Med.-Turan.; *Vlachos* 358.
- **F. thymifolia* (L.) Webb: Chsuffr, St. Med.; *Vlachos* 745.
- **Helianthemum nummularium* (L.) Miller subsp. *nummularium*: Chsuffr, Europ.-Caucas.; *Vlachos* 9, 154, 186.
- **H. nummularium* (L.) Miller subsp. *obscurum* (Čelak.) J. Holub: Chsuffr, Europ.-Caucas.; *Vlachos* 175.

Convolvulaceae

- **Convolvulus elegantissimus* Miller: H scand, St. Med.; *Vlachos* 161, 659.
- **Cuscuta epithymum* (L.) L. subsp. *kotschyi* (Desmoulin) Arcangeli: Thpar, Eu. Med.; *Vlachos* 706, 804.

Cornaceae

- **Cornus mas* L.: Pheasp, Europ. (SE.)-S. Siber.; *Tzanoudakis* 1900!

Crassulaceae

- Sedum acre* L.: Chsucc, Europ.-Caucas.; (M. & P. 1908: 88, Hal. 1908: 40, as var. *neglectum* Ten.).
- S. amplexicaule* DC. subsp. *tenuifolium* (Sm.) Greuter (*S. tenuifolium* (Sm.) Strobl): Chsucc, St. Med.; (M. & P. 1908: 88, Hal. 1908: 40, Strid 1986: 345) *Vlachos* 236, 253, 407.
- **S. anopetalum* DC.: Chsucc, Med.-Mont.; *Vlachos* 1005.
- **S. cepaea* L.: Thscap, Med.-Atl. (Eu.); *Vlachos* 308.
- **S. hispanicum* L.: Thscap, Med. (E.)-Turan.; *Vlachos* 225.

**S. stellatum* L.: Thscap, St. Med.; *Vlachos* 340.

**Umbilicus cloranthus* Boiss.: Gbulb, E. Med.; *Vlachos* 320.

**U. horizontalis* (Guss.) DC.: Gbulb, St. Med.; *Vlachos* 113.

**U. rupestris* (Salisb.) Dandy: Gbulb, Med.-Atl.; *Vlachos* 138.

Cruciferae

Aethionema saxatile (L.) R. Br. subsp. *graecum* (Boiss. & Spruner) Hayek (*A. graecum* Boiss. & Spruner): Chsuffr. Greek; (M. & P. 1908: 35, Hal. 1908: 11).

**A. saxatile* (L.) R. Br. subsp. *oreophilum* I. A. Andersson & al.: Chsuffr, Eu. Med.; *Vlachos* 382, 733.

**Aliaria petiolata* (MB.) Cavara & Grande: Hbienn, Paleotemp.; *Vlachos* 626.

**Alyssum foliosum* Bory & Chaub.: Thscap, E. Med.; *Vlachos* 739.

**A. simplex* Rudolph: Thscap, Med.-Turan.; *Vlachos* 127, 196, 234, 618.

Arabis alpina L. subsp. *caucasica* (Willd.) Briq. (*A. caucasica* Willd.): Hscap, Med.-Mont.; (M. & P. 1908: 25, Hal. 1908: 6, Strid 1986: 268 as *A. alpina*).

**A. sagittata* (Bertol.) DC.: Hbienn, Europ. (SE.); *Vlachos* 252, 273.

A. verna (L.) R. Br.: Thscap, St. Med.; (M. & P. 1908: 25, Hal. 1908: 6) *Vlachos* 121, 327, 381, 611, 660.

Aubrieta deltoidea (L.) DC.: Chsuffr, E. Med.-Mont.; (M. & P. 1908: 31, Hal. 1908: 8) *Phitos* & Kamari 11353!, Tzanoudakis 2027!, *Vlachos* 379, 393.

**Aurinia saxatilis* (L.) Desv. subsp. *orientalis* (Ard.) T. R. Dudley: Chsuffr, E. Med.-Mont.; *Vlachos* 100, 160, 594.

**Biscutella didyma* L.: Thscap, Med.-Turan.; *Vlachos* 371.

**Bunias erucago* L.: Thscap, Eu. Med.; *Damboldt* 117/71!, *Vlachos* 130, 135, 793.

**Calepina irregularis* (Asso) Thell.: Thscap, Med.-Turan.; *Vlachos* 139, 599.

**Capsella bursa-pastoris* (L.) Medicus: Hbienn, Cosmop.; *Vlachos* 12, 46.

Cardamine graeca L.: Thscap, Eu. Med.; (M. & P. 1908: 26, Hal. 1912: 9) *Vlachos* 114, 227.

**C. hirsuta* L.: Thscap, Cosmop.; *Vlachos* 106.

**Clypeola jonthlaspi* L.: Thscap, St. Med.; *Vlachos* 111, 189, 591, 632.

Draba lasiocarpa Rochel subsp. *lasiocarpa* (*D. aizoides* L. subsp. *athoa* (Griseb.) Maire & Petitmengin, *D. athoa* (Griseb.) Boiss.): Hros, Orof. Europ. (SE.); (M. & P. 1908: 33, Hal. 1908: 10 Strid 1986: 310) *Vlachos* 735.

**Erophila praecox* (Steven) DC.: Thscap, Paleotemp.; *Vlachos* 22.

Erysimum microstylum Hausskn.: Hscap, Balkan; (Strid 1986: 244) *Vlachos* 394.

E. pusillum Bory & Chaub.: Hscap, Greek; (M. & P. 1908: 27, Hal. 1908: 6).

Iberis sempervirens L.: Chsuffr, Med.-Mont.; (M. & P. 1908: 34, Hal. 1908: 11, Strid 1986: 332) *Phitos* & Kamari 11368!, *Damboldt* 150/71!, *Vlachos* 737, 1004.

**Lunaria annua* L. subsp. *pachyrhiza* (Borbás) Hayek: Hscap, Europ. (SE.); *Vlachos* 101.

**Malcolmia graeca* Boiss. & Spruner: Thscap, Balkan; *Vlachos* 10, 224, 284, 364, 621, 671, 699.

**Nasturtium officinale* R. Br.: Hscap, Cosmop.; *Vlachos* 326.

**Raphanus raphanistrum* L.: Thscap, Circumbor.; *Vlachos* 607.

**Sisymbrium officinale* (L.) Scop.: Thscap, Subcosmop.; *Vlachos* 222, 617.

**Thlaspi perfoliatum* L.: Thscap, Paleotemp.; *Vlachos* 76.

T. rivale C. Presl: Hscap, E. Med.-Mont.; (Strid 1986: 322).

Cucurbitaceae

**Ecballium elaterium* (L.) A. Richard: Gbulb, Eu. Med.; *Vlachos* 755.

Dipsacaceae

**Knautia integrifolia* (L.) Bertol.: Thscap, Eu. Med.; *Vlachos* 268, 702, 705.

**Lomelosia brachiata* (Sm.) Greuter & Burdet: Thscap, E. Med.; *Vlachos* 749.

**Scabiosa tenuis* Boiss.: Thscap, Balkan; *Vlachos* 748.

Ericaceae

Arbutus andrachne L.: Phcaesp, E. Med.; (M. & P. 1908: 149) *Kamari* & al. 20670!, *Vlachos* 241.

**A. unedo* L.: Phcaesp, St. Med.; *Damboldt* 64/75!, *Tzanoudakis* 1992!, *Kamari* & al. 20672!, *Vlachos* 51.

Euphorbiaceae

**Euphorbia acanthothamnos* Boiss.: Chfrut, E. Med.; *Vlachos* 4.

**E. apios* L.: Gbulb, E. Med.; *Vlachos* 14.

**E. chamaesyce* L.: Thrept, Eu. Med.; *Damboldt* 138/71!, *Phitos* & *Kamari* 11312!

**E. dendroides* L.: NPh, St. Med.; *Vlachos* obs.

**E. helioscopia* L.: Thscap, Cosmop.; *Vlachos* 412.

**E. herniariifolia* Willd.: Hrept, E. Med.; *Vlachos* obs.

E. myrsinites L.: Chrept, Europ. (S.)-S. Siber.; (M. & P. 1908: 196, Hal. 1912: 76) *Vlachos* 374, 421.

**E. taurinensis* All.: Thscap, Eu. Med.; *Vlachos* 190.

**Mercurialis annua* L.: Thscap, Paleotemp.; *Vlachos* 44, 773.

**M. ovata* Sternb. & Hoppe: Grhiz, Eurosiber.; *Strid* 29512! *M. perennis* L.: Grhiz, Europ.-Caucas.; (M. & P. 1908: 194, Hal. 1912: 75).

Fagaceae

**Quercus coccifera* L.: Phcaesp, St. Med.; *Vlachos* 83.

Q. ilex L.: Phscap, St. Med.; (M. & P. 1908: 200) *Vlachos* 239.

**Q. pubescens* Willd.: Phscap, Eu. Med.; *Vlachos* 238.

Gentianaceae

**Blackstonia perfoliata* (L.) Hudson: Thscap, Eu. Med.; *Vlachos* 279.

**Centaurium erythraea* Rafn subsp. *erythraea*: Hbienn, Paleotemp.; *Damboldt* 128/71!

**C. tenuiflorum* (Hoffmanns. & Link) Fritsch: Thscap, Eu. Med.; *Vlachos* 570.

Geraniaceae

**Erodium cicutarium* (L.) L'Hér: Thscap, Subcosmop.; *Vlachos* 18, 323, 676.

**E. malacoides* (L.) L'Hér: Thscap, St. Med.; *Vlachos* 679.

Geranium lucidum L.: Thscap, Eu. Med.; (M. & P. 1908: 58, Hal. 1912: 24, Strid 1986: 548) *Vlachos* 123, 141, 210. **G. molle* L. subsp. *molle*: Thscap, Subcosmop.; *Vlachos* 1, 11, 88, 774.

**G. robertianum* L. subsp. *purpureum* (Vill.) Nyman: Thscap, Eu. Med.; *Vlachos* 353, 390, 642.

**G. robertianum* L. subsp. *robertianum*: Thscap, Subcosmop.; *Vlachos* 211, 287.

**G. subcaulescens* DC.: Hros, E. Med.; *Strid* 29524!, *Vlachos* 420.

Guttiferae

Hypericum sprunieri Boiss.: Hscap, E. Med.; (M. & P. 1908: 53, Hal. 1908: 23).

Labiatae

**Ajuga chamaepitys* (L.) Schreber subsp. *chia* (Schreber) Arcangeli: Thscap, Eu. Med.; *Phitos* & *Kamari* 11333!, *Vlachos* 619, 683.

**A. reptans* L.: Hrept, Europ.-Caucas.; *Vlachos* 612.

- **Coridothymus capitatus* (L.) Reichenb.: Chfrut, St. Med.; *Vlachos* 744, 822, 894.
- **Lamium amplexicaule* L.: Thscap, Paleotemp.; *Vlachos* 17, 440, 592, 643.
- **L. bifidum* Cyr. subsp. *bifidum*: Thscap, St. Med.; *Vlachos* 623.
- L. garganicum* L. subsp. *laevigatum* Arcangeli: Hscap, Med.-Mont.; (M. & P. 1908: 175 as *L. gargaricum*) *Vlachos* 75, 247, 392, 596.
- **Marubium vulgare* L.: Hscap, Subcosmop.; *Vlachos* 678.
- **Melissa officinalis* L. subsp. *altissima* (Sm.) Arcangeli: Hscap, Eu. Med.; *Vlachos* 778.
- **Mentha spicata* L. subsp. *condesata* (Briq.) Greuter & Burdet: Hscap, E. Med.; *Vlachos* 812.
- **M. pulegium* L. subsp. *cephalonica* (H. Braun) Kokkini: Hscap, Greek; *Vlachos* 816, 835.
- **Origanum vulgare* L.: Hscap, Euras.; *Vlachos* 769.
- **Phlomis fruticosa* L.: Nph, St. Med.; *Vlachos* 27.
- Prunella laciniata* (L.) L.: Hscap, Eu. Med.; (M. & P. 1908: 172, Hal. 1908: 84) *Vlachos* 315, 777.
- **Salvia pratensis* L.: Hscap, Eu. Med.; *Vlachos* 701.
- **S. sclarea* L.: Hbienn, Eu. Med.; *Damboldt* 106/71!
- **S. fruticosa* Miller: Phcaesp, E. Med.; *Vlachos* 122, 703.
- **S. verticillata* L.: Hscap, Orov. Europ. (S.)-Caucas.; *Vlachos* 264.
- **Satureja calamintha* (L.) Scheele: Hscap, Med.(Eu.)-Mont.; *Vlachos* 744, 822, 894.
- S. cremnophila* (Boiss.& Heldr.) Briq. subsp. *cremnophila* (*Micromeria cremnophila* Boiss. & Heldr.): Chsuffr, Balkan; (M. & P. 1908: 179, Hal. 1908: 87, Strid & Tan 1991: 135) *Damboldt* 151/71!, *Phitos & Kamari* 11369!, *Vlachos* 791, 799.
- **S. graeca* L.: Chsuffr, St. Med.; *Vlachos* 182.
- **S. juliana* L.: Chsuffr, St. Med.; *Vlachos* 696, 746, 806, 898.
- **S. montana* L. subsp. *pisidica* (Wettst.) Silić: Chsuffr, E. Med.-Mont.; *Vlachos* 786.
- **S. suaveolens* (Sm.) Watzl-Zeman: Chsuffr, E. Med.; *Vlachos* 335, 375.
- **S. vulgaris* (L.) Fritsch: Hscap, Circumbor; *Vlachos* 740, 780.
- **Scutellaria rupestris* Boiss. & Heldr. subsp. *parnassica* (Boiss.) Greuter & Burdet: Hscap, Greek; *Vlachos* 355.
- **S. rupestris* Boiss & Heldr. subsp. *cephalonica* (Rech.fil.) Greuter & Burdet: Hscap, Greek; *Vlachos* 790, 797, 801.
- S. rupestris* Boiss. & Heldr. subsp. *rupestris* (*S. peregrina* subsp. *rupestris* (Boiss. & Heldr.) Maire & Petitmengin): Hscap, Greek; (M. & P. 1908: 172, Hal. 1908: 84).
- Sideritis raeseri* Boiss. & Heldr. subsp. *raeseri* (*S. sicula* Ucria subsp. *raeseri* (Boiss. & Heldr.) Maire & Petitmengin): Chsuffr, Balkan (M. & P. 1908: 174, Hal. 1908: 84, Strid & Tan 1991: 87).
- **S. purpurea* Bentham: Thscap, Balkan; *Vlachos* 439, 714.
- **Teucrium capitatum* L.: Chsuffr, Eu. Med.; *Damboldt* 108/71!, s.n.!, *Vlachos* 50, 226, 357, 700, 742.
- T. chamaedrys* L. subsp. *chamaedrys*: Chsuffr, Eu. Med.; (M. & P. 1908: 174, Hal. 1908: 84, Strid & Tan 1991: 71) *Vlachos* 743, 805.
- **T. flavum* L. subsp. *hellenicum* Rech.fil.: Chfrut, E. Med.; *Vlachos* 667, 823.
- T. montanum* L. subsp. *montanum*: Chsuffr, Orov. Europ. (S.) (M. & P. 1908: 170 as var. *parnassicum* Celek, Hal. 1908: 83, Strid & Tan 1991: 74).
- Thymus leucotrichus* Halász subsp. *leucotrichus* (*T. hirsutus* subsp. *leucotrichus* (Halász) Maire & Petitmengin); Chfrut, E. Med.; (M. & P. 1908: 182, Hal. 1908: 88).

Leguminosae

- Anthyllis vulneraria* L. subsp. *bulgarica* (Sagorski) Cullen: Hscap, Balkan; (Strid 1986: 524) *Vlachos* 146, 344, 356, 443.
- **Astragalus angustifolius* Lam. subsp. *angustifolius*: Chfrut, E. Med.; *Vlachos* 426.

- **A. monspessulanus* L.: Hros, Eu. Med.; *Vlachos* 620.
- **Bituminaria bituminosa* (L.) Stirton: Hscap, Eu. Med.; *Vlachos* 225, 723, 761.
- **Calicotome villosa* (Poiret) Link: Phaeaesp, St. Med.; *Vlachos* 24, 85, 770.
- **Ceratonia siliqua* L.: Phscap, St. Med.; *Vlachos* 104.
- **Cercis siliquastrum* L. subsp. *siliquastrum*: Phscap, Eu. Med.; *Vlachos* 87.
- **Colutea arborescens* L. subsp. *arborescens*: Phaeaesp, Eu. Med.; *Vlachos* 297.
- **Coronilla scorpioides* (L.) Koch: Thscap, Eu. Med.; *Vlachos* 179, 663.
- Dorycnium herbaceum* Vill. subsp. *herbaceum* (*D. pentaphyllum* subsp. *herbaceum* (Vill.) Bonnier & Layens): Hscap, Eu. Med.; (M. & P. 1908: 67, Hal. 1912: 31, Strid 1986: 517) *Vlachos* 772.
- **D. hirsutum* (L.) Ser.: Chsuffr, Eu. Med.; *Vlachos* 334, 766.
- **Hippocrepis biflora* Spreng.: Thscap, Eu. Med.; *Vlachos* 712.
- **H. comosa* L.: Hcaesp, Eu. Med.; *Vlachos* 246, 403.
- **H. emerus* (L.) Lassen subsp. *emeroides* (Boiss. & Spruner) Lassen: NPh, E. Med.; *Vlachos* 77.
- **Lathyrus aphaca* L.: Thscap, Eu. Med.; *Vlachos* 153.
- **L. cicera* L.: Thscap, Med.-Turan.; *Vlachos* 157, 213.
- **L. digitatus* (MB.) Fiori: Grhz, E. Med.; *Vlachos* 232, 250.
- **L. hirsutus* L.: Thscap, Eu. Med.; *Vlachos* 213.
- L. laxiflorus* (Desf.) O. Kuntze (*Orobus hirsutus* L.): Hscap, E. Med.; (M. & P. 1908: 72, Hal. 1908: 34).
- **L. setifolius* L.: Thscap, Eu. Med.; *Vlachos* 266.
- **Lotus corniculatus* L.: Hscap, Cosmop.; *Vlachos* 5, 25, 119, 170.
- **L. edulis* L.: Thscap, St. Med.; *Vlachos* 719.
- **L. glaber* Miller (*L. tenuis* Willd.): Hscap, Paleotemp.; *Damboldt s.n.!*
- **L. ornithopodioides* L.: Thscap, St. Med.; *Vlachos* 721.
- **Medicago coronata* (L.) Bartal.: Thscap, St. Med.; *Vlachos* 718.
- **M. minima* (L.) L.: Thscap, Paleotemp.; *Vlachos* 697.
- **Melilotus graecus* (Boiss. & Spruner) Lassen: Thscap, Greek; *Vlachos* 195, 704.
- **M. italicus* (L.) Lam.: Thscap, St. Med.; *Vlachos* 195.
- **Onobrychis caput-galli* Lam.: Thscap, St. Med.; *Vlachos* 258, 707.
- **Ononis ornithopodioides* L.: Thscap, St. Med.; *Vlachos* 708, 722.
- **O. pubescens* L.: Thscap, St. Med.; *Vlachos* 759.
- O. pusilla* L.: Hscap, Eu. Med.; (M. & P. 1908: 63, Hal. 1908: 27) *Phitos & Kamari* 11297!, 11302!
- **O. spinosa* L.: Chsuffr, Eu. Med.; *Vlachos* 776, 811.
- **Scorpiurus muricatus* L.: Thscap, Eu. Med.; *Vlachos* 716.
- **Securigera securidaca* (L.) Degen & Dörfler: Thscap, Eu. Med.; *Vlachos* 720.
- **Spartium junceum* L.: Phaeaesp, Eu. Med.; *Vlachos* 263.
- **Trifolium angustifolium* L.: Thscap, Eu. Med.; *Vlachos* 267.
- **T. campestre* Schreber: Thscap, Paleotemp.; *Vlachos* 187, 203.
- **T. grandiflorum* Schreber: Thscap, E. Med.; *Vlachos* 167.
- **T. infamia-ponertii* Greuter: Thscap, Eu. Med.; *Vlachos* 695.
- **T. physodes* MB.: Hscap, Eu. Med.; *Vlachos* 249, 254.
- **T. resupinatum* L.: Thrept, Paleotemp.; *Vlachos* 318, 330.
- **T. stellatum* L.: Thscap, Eu. Med.; *Vlachos* 81, 136.
- **T. tomentosum* L.: Thrept, Paleotemp.; *Vlachos* 316.
- **T. xanthinum* Freyn: Thscap, E. Med.; *Vlachos* 165, 168, 680.
- **Tripodion tetraphyllum* (L.) Fourr.: Thscap, St. Med.; *Vlachos* 692.
- **Vicia hybrida* L.: Thscap, Eu. Med.; *Vlachos* 237.
- **V. laeta* Cesati: Hscap, Eu. Med.; *Vlachos* 1006.
- **V. villosa* Roth subsp. *eriocarpa* (Hausskn.) P. W. Ball: Thscap, E. Med.; *Vlachos* 199.

Linaceae

- **Linum corymbulosum* Reichenb.: Thscap, Eu. Med.; *Vlachos* 351, 752.
 **L. pubescens* Banks & Solander: Thscap, E. Med.; *Vlachos* 257.
 **L. strictum* L.: Thscap, Eu. Med.; *Vlachos* 724.

Loranthaceae

- **Viscum album* L.: Phep, Euras.; *Vlachos* obs.

Malvaceae

- **Malva cretica* Cav. subsp. *cretica*: Thscap, St. Med.; *Vlachos* 710.
 **M. sylvestris* L.: Hscap, Subcosmop.; *Vlachos* 338.

Moraceae

- **Ficus carica* L.: Phcaesp, Med.-Turan.; *Vlachos* obs.

Oleaceae

- Fraxinus ornus* L.: Phscap, Eu. Med.; (M. & P. 1908: 150, Hal. 1908: 72) *Vlachos* 158, 230, 233, 300.
 **Olea europaea* L. subsp. *oleaster* (Hoffmanns. & Link) Negodi: Phcaesp, St. Med.; *Vlachos* obs.
Phillyrea latifolia L. (*P. media* L.): Phcaesp, St. Med.; (M. & P. 1908: 149) *Vlachos* 53.

Paeoniaceae

- Paeonia mascula* (L.) Miller subsp. *russoi* (Biv.) Cullen & Heywood: Grhiz, Europ.-Caucas.; (M. & P. 1908: 24 as *P. corallina* Retz., Hal. 1912: 8, Tzanoudakis 1977: 34, 1983: 318) *Phitos & Kamari* 11337!, Tzanoudakis 1170!, 2019!

Papaveraceae

- **Fumaria capreolata* L.: Thscap, Eu. Med.; *Vlachos* 112.
 **F. petteri* Reichenb. subsp. *petteri*: Thscap, E. Med.; *Tzanoudakis* 1187!, *Vlachos* 144.
 **Papaver hybridum* L.: Thscap, Med.-Turan.; *Vlachos* 180, 629.

Plantaginaceae

- **Plantago afra* L.: Thscap, Eu. Med.; *Vlachos* 336, 354, 640.
 **P. atrata* Hoppe subsp. *graeca* (Halácsy) J. Holub: Hros, Balkan; *Vlachos* 324, 600.

Platanaceae

- **Platanus orientalis* L.: Phscap, E. Med.; *Vlachos* 177, 314, 606.

Plumbaginaceae

- Acantholimon graecus* F.K. Meyer ("*A. echinus*"): Chfrut, Balkan; (M. & P. 1908: 186, Hal. 1908: 91) *Damboldt* 19/75!, *Vlachos* 434.
Armeria canescens (Host) Boiss. (*Statice canescens* Host.): Hros, Orof. Europ. (SE.); (M. & P. 1908: 187, Hal. 1908: 92) *Vlachos* 244.

Polygonaceae

**Rumex pulcher* L. subsp. *woodsii* (De Not.) Arcangeli: Hscap, Eu. Med.; *Damboldt* 123/71!, *Vlachos* 639, 813.

Portulaceae

**Portulaca oleracea* L. subsp. *oleracea*: Thscap, Subcosmop.; *Damboldt* 172/71!

Primulaceae

**Anagallis arvensis* L.: Thrept, Subcosmop.; *Vlachos* 325, 331, 633, 657, 669.

**Asterolinon linum-stellatum* (L.) Duby: Thscap, St. Med.; *Vlachos* obs.

**Cyclamen hederifolium* Aiton: Gbulb, Eu. Med.; *Vlachos* 888, 889.

Pyrolaceae

Monotropa hypopitys L.: Gpar, Circumbor.; (M. & P. 1908: 149, Hal. 1908: 72).

Ranunculaceae

**Anemone blanda* Schott & Kotschy: Grhiz, E. Med.; *Vlachos* 71.

**A. pavonina* Lam.: Gbulb, Eu. Med.; *Vlachos* 3, 16, 43.

**Clematis vitalba* L.: Phlian, Europ.-Caucas.; *Vlachos* 768.

**Delphinium hellenicum* Pawl.: Thscap, Greek; *Vlachos* 833.

**Nigella damascena* L.: Thscap, Eu. Med.; *Damboldt* 178/71!, *Vlachos* 216, 428, 438.

**Ranunculus chius* DC.: Thscap, E. Med.; *Vlachos* 616.

**R. ficaria* L. s. l.: Gbulb, Euras.; *Vlachos* 15, 29, 80.

**R. gracilis* E.D.Clarke: Hscap, E. Med.; *Vlachos* 32, 169, 204.

**R. muricatus* L.: Thscap, Eu. Med.; *Vlachos* 333.

**R. sprunnerianus* Boiss.: Hscap, E. Med.; *Tzanoudakis* 1171!, *Strid & al.* 29532!, *Vlachos* 312, 681, 688.

**R. velutinus* Ten.: Hscap, Eu. Med.; *Vlachos* 309.

Rhamnaceae

**Paliurus spina christi* Miller: Phcaesp, Europ. (S.)-S. Siber; *Vlachos* obs.

Rhamnus saxatilis Jacq. subsp. *prunifolia* (Sm.) Aldén (*R. prunifolia* Sm.): Phcaesp, Balkan; (M. & P. 1908: 61, Halácsy 1912: 25, Strid 1986: 586).

Rosaceae

**Aphanes arvensis* L.: Thscap, Subcosmop.; *Vlachos* 674.

**Arenaria agrimonoides* (L.) DC.: Hros, E. Med.; *Vlachos* 624.

Cotoneaster nebrodensis (Guss.) C. Koch (*C. tomentosa* var. *parnassica* (Boiss. & Heldr.) Bald.): Nph, Europ. (S.)-S. Siber.; (M. & P. 1908: 81, Hal. 1908: 36, Strid 1986: 439) *Vlachos* 802.

**Crataegus heldreichii* Boiss.: Phcaesp, Balkan; *Vlachos* 236.

**C. monogyna* Jacq. subsp. *monogyna*: Phcaesp, Paleotemp.; *Damboldt* 61/75!, *Christensen & al.* 1441!, *Vlachos* 840.

**C. monogyna* Jacq. subsp. *azarella* (Griseb.) Franco: Phcaesp, Europ. (S.)-S. Siber.; *Tzanoudakis* 2008!, 2026!

**C. orientalis* Pallas: Phcaesp, E. Med.; *Damboldt* 60/75!, *Tzanoudakis* 2003!

**Potentilla reptans* L.: Hros, Subcosmop.; *Vlachos* 817.

Prunus cocomilia Ten. (*P. pseudoarmeniaca* Heldr. & Sart.): Phscap, E. Med.-Mont.; (M. & P. 1908: 74, Hal. 1908: 35).

**P. mahaleb* L.: Phcaesp, Europ. (S.)-S. Siber.; *Vlachos* 238, 422.

**Pyrus amygdaliformis* Vill.: Phcaesp, St. Med.; *Vlachos* 84, 233.

**Rosa agrestis* Savi: Nph, Eu. Med.; Strid & al. 29504!, *Vlachos* 435.

R. pulverulenta M. Bieb. (*R. glutinosa* Sm.): Nph, E. Med.-Mont. (M. & P. 1908: 77, Strid 1986: 398).

**Rubus ulmifolius* Schott: Nph, Eu. Med.; *Vlachos* 753.

**Sanguisorba minor* Scop. subsp. *magnoliae* (Spach) Nordborg: Hscap, Eu. Med.; *Vlachos* 184, 327, 603, 685, 731.

Sorbus aria (L.) Crantz subsp. *cretica* (Lindley) Holmboe (*S. aria* var. *umbellata* (Desf.) Halácsy): Phcaesp, Europ. (S.)-S. Siber.; (M. & P. 1908: 80, Hal. 1908: 36).

Rubiaceae

**Crucianella angustifolia* L.: Thscap, Eu. Med.; *Vlachos* 399, 792.

**C. latifolia* L.: Thscap, St. Med.; *Damboldt* 125/71!, *Vlachos* 291, 782.

**Cruciata laevipes* Opiz: Hscap, Euras.; *Vlachos* 218, 235.

**Galium asparagifolium* Boiss. & Heldr.: Hscap, E. Med.; *Vlachos* 370, 425, 684.

**G. capitatum* Bory & Chaub.: Thscap, Greek; *Vlachos* 262, 294, 365.

G. intricatum Margot & Reuter (*G. zacynthium* var. *intricatum* (Margot & Reuter) Halácsy): Thscap, Balkan (M. & P. 1908: 105, Hal. 1908: 47, Strid & Tan 1991: 326).

**G. spurium* L.: Thscap, Euras.; *Vlachos* 120, 292.

**G. cf. verum* L.: Hscap, Euras.; *Vlachos* 295.

**Putoria calabrica* (L. fil.) DC.: Nph, St. Med.; *Vlachos* 758, 833.

**Sherardia arvensis* L.: Thscap, Subcosmop.; *Vlachos* 99, 105, 198, 304, 652.

Valantia aprica (Sm.) Boiss. & Heldr. (*Galium apricum* var. *aristatum* (Boiss. & Heldr.) Halácsy): Hcaesp, Balkan; (M. & P. 1908: 105, Hal. 1908: 47, Strid & Tan 1991: 333), *Vlachos* 245, 738.

**V. muralis* L.: Thscap, St. Med.; *Vlachos* 117.

Salicaceae

**Salix alba* L.: Phcaesp, Paleotemp.; *Vlachos* obs.

Saxifragaceae

**Saxifraga chrysosplenifolia* Boiss.: Hbienn, Balkan; *Vlachos* 61, 62.

**S. graeca* Boiss.: Hscap, E. Med.; *Vlachos* 221, 234.

**S. tridactylites* L.: Thscap, Eu. Med.; *Vlachos* 66.

Scrophulariaceae

Cymbalaria microcalyx (Boiss.) Wettst. subsp. *minor* (Cuf.) Greuter: Chrept, Greek; (M. & P. 1908: 162 and Hal. 1908: 80 as *Linaria microcalyx* Boiss., Strid & Tan 1991: 207).

**C. muralis* P. Gaertner: Chrept, Subcosmop.; *Vlachos* 212, 386.

**Linaria pelisseriana* (L.) Miller: Thscap, Med.-Atl.; *Vlachos* 672.

L. peloponnesiaca Boiss. & Heldr.: Hscap, E. Med.; (M. & P. 1908: 161, Hal. 1908: 79, Strid & Tan 1991: 204).

**Parentucellia latifolia* (L.) Caruel: Thscap, Eu. Med.; *Vlachos* 598.

**Scrophularia canina* L. subsp. *bicolor* (Sm.) Greuter: Hscap, E. Med.; *Vlachos* 604.

**S. laciniata* Waldst. & Kit.: Hscap, Balkan; *Vlachos* 892.

**S. peregrina* L.: Thscap, St. Med.; *Vlachos* 132, 214, 614.

**Verbascum sinuatum* L.: Hbienn, Eu. Med.; *Vlachos* 756.

**Veronica anagallis-aquatica* L.: Hscap, Cosmop.; *Vlachos* 328.

**V. arvensis* L.: Thscap, Subcosmop.; *Vlachos* 630.

V. chamaedrys L. subsp. *chamaedryoides* (Bory & Chaud.) M.A. Fischer: Hscap, Greek; (Strid & Tan 1991: 222) *Vlachos* 220.

**V. cymbalaria* Bodard: Thscap, Eu. Med.; *Vlachos* 68, 593.

V. glauca Sm. subsp. *peloponnesiaca* (Boiss. & Orph.) Maire & Petitmengin (*V. peloponnesiaca* Boiss. & Orph.): Thscap, Greek; (M. & P. 1908: 165, Hal. 1908: 81, Strid & Tan 1991: 228) *Vlachos* 52.

**V. hederifolia* L.: Thscap, Euras.; *Vlachos* 627.

Thymelaeaceae

Daphne laureola L.: Phcaesp, Med.-Atl.; (M. & P. 1908: 192, Hal. 1912: 75).

D. oleoides Schreber: Chfrut, Med.-Turan.; (M. & P. 1908: 193, Strid 1986: 592) *Vlachos* 255.

D. sericea Vahl (*D. collina* Sm.); Nph, E. Med.-Mont.; (M. & P. 1908: 193, Hal. 1908: 95) *Vlachos* 240.

Urticaceae

**Parietaria judaica* L.: Hscap, Med.-Atl.; *Vlachos* 215, 321.

**Urtica dioica* L.: Hscap, Subcosmop.; *Vlachos* 319.

Valerianaceae

**Centranthus ruber* (L.) DC. subsp. *sibthorpii* (Heldr. & Sart.) Hayek: Chsuffr, Balkan; *Vlachos* 102.

**Valeriana italica* Lam.: Hscap, E. Med.; *Vlachos* 72, 131, 219, 273.

**Valerianella dentata* (L.) Pollich: Thscap, Med.-Atl.; *Vlachos* 677.

**V. discoidea* (L.) Loisel.: Thscap, St. Med.; *Vlachos* 641, 670, 711.

**V. echinata* (L.) DC.: Thscap, St. Med.; *Vlachos* 202, 686.

Verbenaceae

**Verbena officinalis* L.: Hscap, Cosmop.; *Vlachos* 836.

**Vitex agnus-castus* L.: Phcaesp, Med.-Turan.; *Vlachos* 299.

Violaceae

**Viola alba* Besser subsp. *dehnhardtii* (Ten.) W. Becker: Hros, Eu. Med.; *Vlachos* 73.

V. graeca (W. Becker) Halácsy (*V. gracilis* sensu Hal.): Hscap, E. Med.-Mont.; (M. & P. 1908: 39, Hal. 1908: 15, Strid 1986: 628) *Vlachos* 239, 397, 732.

V. kitaibeliana Schultes (*V. tricolor* var. *kitaibeliana* (Schultes) Boiss., *V. arvensis* var. *kitaibeliana* (Schultes) Halácsy): Thscap, Eu. Med.; (M. & P. 1908: 39, Hal. 1908: 15, Strid 1986: 636) *Vlachos* 729.

MONOCOTYLEDONES

Amaryllidaceae

**Galanthus reginae-olgae* Orph. subsp. *vernalis* Kamari: Gbulb, Greek; *Vlachos* 81.

- **Leucojum valentinum* Pau: Gbulb, St. Med.; *Vlachos* 820, 825.
Sternbergia colchiciflora Waldst. & Kit.: Gbulb, Eu. Med. (Artelari & Kamari 1991: 241, Strid & Tan 1991: 717).
**S. lutea* (L.) Ker-Gawler: Gbulb, Med.-Mont.; *Vlachos* 887.

Araceae

- **Arum maculatum* L.: Grhiz, Europ.; *Vlachos* 319.

Cyperaceae

- Carex halleriana* Asso: Hcaesp, Eu. Med.; (M. & P. 1908: 215, Hal. 1912: 86).
**Scirpus holoschoenus* L.: Grhiz, Eu. Med.; *Vlachos* 831.

Dioscoreaceae

- **Tamus communis* L.: G rad, Eu. Med; *Vlachos* 26.

Iridaceae

- **Crocus cancellatus* Herbert subsp. *mazzaricus* (Herbert) Mathew: Gbulb, E. Med.; *Damboldt* 6/75!, *Vlachos* 892.
**C. hadriaticus* Herbert subsp. *hadriaticus*: Gbulb, Greek; *Vlachos* 891.
**Iris unguicularis* Poiret s.l.: Grhiz, E. Med.; *Vlachos* 32, 60.
**I. reichenbachii* Heuffel: Grhiz, Europ. (SE.); *Vlachos* 243.
**Romulea bulbocodium* (L.) Seb. & Mauri: Gbulb, St. Med.; *Vlachos* 20.

Juncaceae

- **Juncus inflexus* L.: Hcaesp, Paleotemp.; *Vlachos* 814, 837.
**J. striatus* Schousboe: Grhiz, St. Med.; *Vlachos* 809.

Liliaceae

- **Allium callimischon* Link.: Gbulb, Greek; *Vlachos* 895.
A. flavum L. subsp. *flavum* (*A. guicciardii* Heldr.): Gbulb, Eu. Med.; (M. & P. 1908: 208, Hal. 1912: 83) *Damboldt* 169/71!, 137/71!, *Vlachos* 803.
**A. subhirsutum* L.: Gbulb, St. Med.; *Vlachos* 145, 200, 635, 738.
A. vineale L. (*A. assimile* Halász): Gbulb, Eu. Med.; (M. & P. 1908: 206, Strid & Tan 1991: 712).
**Asparagus acutifolius* L.: Grhiz, St. Med.; *Vlachos* 350, 826.
**Asphodelus aestivus* Brot.: Grhiz, St. Med.; *Vlachos* 38.
**Bellevalia dubia* (Guss.) Kunth subsp. *boissieri* (Freyn) Feinbrun: Gbulb, St. Med.; *Vlachos* 31.
**B. hyacinthoides* (Bertol.) Persson & Wendelbo (*Strangweia spicata* (Sm.) Boiss.): Gbulb, Greek; *Vlachos* 47, 63, 219.
**B. romana* (L.) Reichenb.: Gbulb, St. Med.; *Vlachos* 610.
**Colchicum bivonae* Guss.: Gbulb, Eu. Med.; *Vlachos* 834.
**C. cupani* Guss.: Gbulb, St. Med.; *Tzanoudakis* 2020, *Vlachos* 893.
**C. lingulatum* Boiss. & Spruner: Gbulb, E. Med.; *Vlachos* 897.
Fritillaria mutabilis Kamari: Gbulb, Greek; (Kamari 1991: 680) *Vlachos* 242.
F. thessala (Boiss.) Kamari subsp. *thessala*: Gbulb, Greek; (Kamari 1991: 681) *Vlachos* 229.
Gagea graeca (L.) A. Terracc. (*Lloydia graeca* (L.) Endl.): Gbulb, E. Med.; (M. & P. 1908: 206, Hal. 1908: 103) *Vlachos* 201.

- **G. granatellii* (Parl.) Parl.: Gbulb, St. Med.; *Vlachos* 45, 590.
- **Muscari comosum* (L.) Miller: Gbulb, Eu. Med.; *Vlachos* 181.
- **Ornithogalum exscapum* Ten.: Gbulb, Europ. (S.); *Tzanoudakis* 1181!
- **O. sphaerocarpum* A. Kerner: Gbulb, Europ. (SE.); *Vlachos* 348.
- **O. umbellatum* L.: Gbulb, Eu. Med.; *Vlachos* 34.
- **Ruscus aculeatus* L.: Grhiz, Eu. Med.; *Vlachos* 28.
- **Scilla autumnalis* L.: Gbulb, Eu. Med.; *Vlachos* 821.
- **S. bifolia* L.: Gbulb, Eu. Med.; *Vlachos* 79.
- **Smilax aspera* L.: Nph, Paleosubtrop.; *Vlachos* 39.
- Tulipa australis* Link: Gbulb, Med.-Mont.; (Strid & Tan 1991: 669).
- **Urginea maritima* (L.) Baker: Gbulb, St. Med.; *Vlachos* obs.

Orchidaceae

- Anacamptis pyramidalis* (L.) L. C. M. Richard: Gbulb, Eu. Med.; (M. & P. 1908: 205, Hal. 1908: 100).
- Cephalanthera rubra* (L.) L.C.M. Richard: Grhiz, Euras.; (M. & P. 1908: 204, Hal. 1908: 100) Kamari et al. 20663!
- Epipactis helleborine* (L.) Crantz (*E. latifolia* All.): Grhiz, Paleotemp.; (M. & P. 1908: 204, Hal. 1908: 100).
- **Ophrys ferrum-equinum* Desf.: Gbulb, E. Med.; *Vlachos* 129.
- **O. lutea* (Gouan) Cav.: Gbulb, St. Med.; *Vlachos* 128, 601.
- **O. scolopax* Cav. subsp. *oestifera* (M. Bieb.) Soó: Gbulb, E. Med.; *Vlachos* obs.
- **Orchis papilionacea* L.: Gbulb, Eu. Med.; *Vlachos* 230.
- **O. provincialis* Balbis subsp. *pauciflora* (Ten.) Camus: Gbulb, St. Med.; *Vlachos* obs.
- **O. quadripunctata* Cyr.: Gbulb, E. Med.; *Vlachos* 152, 1008.
- **O. simia* Lam.: Gbulb, Eu. Med.; *Vlachos* 646.
- **O. tridentata* Scop.: Gbulb, Eu. Med.; *Vlachos* 183.
- **Spiranthes spiralis* (L.) Chevall.: Grhiz, Europ.-Caucas.; *Vlachos* 896.

Poaceae

- **Aegilops lorentii* Hochst.: Thscap, Eu. Med.; *Vlachos* 259.
- **Anthoxanthum odoratum* L.: Hcaesp, Euras.; *Vlachos* 241, 362, 415.
- Arrhenatherum elatius* (L.) P. Beauv.: Hcaesp, Paleotemp.; (Strid & Tan 1991: 303).
- **Avena barbata* Pott: Thscap, Med.-Turan.; *Vlachos* 205, 271.
- **A. lusitanica* (Tab. Mor.) Baum (*A. barbata* Pott subsp. *atherantha* (C. Presl) Rocha Afonso): Thscap, St. Med.; *Vlachos* 229.
- **Brachypodium distachyon* (L.) P. Beauv.: Thscap, Med.-Turan.; *Vlachos* 266, 275, 332.
- B. retusum* (Pers.) P. Beauv.: Hcaesp, St. Med.; (M. & P. 1908: 232, Hal. 1908: 115) *Vlachos* 808.
- B. rupestre* (Host) Roemer & Schultes (*B. caespitosum* (Host) Roemer & Schultes): Hcaesp, (Eu.) Med. - (Sub) Atl; (Hal. 1912: 91).
- **Briza maxima* L.: Thscap, Paleosubtrop.; *Vlachos* 156, 270.
- **Bromus hordeaceus* L. subsp. *molliformis* (Lloyd) Maire & Weiller: Thscap, Eu. Med.; *Vlachos* 429.
- **B. intermedius* Guss.: Thscap, Eu. Med.; *Vlachos* 147, 277, 400, 810.
- **B. sterilis* L.: Thscap, Med.-Turan.; *Vlachos* 228, 293, 329, 352, 424.
- **Cynosurus echinatus* L.: Thscap, Eu. Med.; *Vlachos* 155, 360.
- **C. effusus* Link.: Thscap, St. Med.; *Vlachos* 193.
- **Dactylis glomerata* L. subsp. *hispanica* (Roth) Nyman: Hcaesp, St. Med.; *Vlachos* 267, 285.
- **Dasypyrum villosum* (L.) Cand.: Thscap, Med.-Turan.; *Vlachos* 260, 372.

- **Desmazeria rigida* (L.) Tutin: Thscap, Eu. Med.; *Vlachos* 798.
- **Festuca jeanpertii* (St-Yves) F. Markgraf: Hcaesp, E. Med.-Mont.; *Vlachos* 296, 349, 411, 414.
- **F. cf. polita* (Halász) Tzvelev: Hcaesp, Greek; *Vlachos* 841.
- F. valesiaca* Schleicher (*F. ovina* var. *valesiaca* (Schleicher) W. Koch): Hcaesp, Europ. (SE.)-S. Siber.; (M. & P. 1908: 226, Hal. 1908: 113).
- Glyceria fluitans* (L.) R. Br.: Grhiz, Subcosmop.; (M. & P. 1908: 228).
- Hordeum bulbosum* L.: Hcaesp, Paleosubtrop.; (M. & P. 1908: 230).
- **Hyparrhenia hirta* (L.) Stapf: Hcaesp, Paleotrop.; *Vlachos* 347.
- **Imperata cylindrica* (L.) Raeuschel: Grhiz, Cosmop.; *Vlachos* 763.
- Koeleria lobata* (M. Bieb.) Roemer & Schultes (*K. cristata* var. *splendens* (C. Presl.) Halász): Hcaesp, Eu. Med.; (M. & P. 1908: 223, Hal. 1908: 112, Strid & Tan 1991: 805).
- **Lagurus ovatus* L.: Thscap, Eu. Med.; *Vlachos* 301.
- **Melica ciliata* L.: Hcaesp, Med.-Turán.; *Vlachos* 785.
- **M. cupaniifolia* Guss.: Hcaesp, Med.-Turán.; *Vlachos* 339.
- **M. transsilvanica* Schur: Hcaesp, Europ. (SE.)-S. Siber.; *Vlachos* 343.
- **Milium vernale* M. Bieb.: Thscap, Med.-Mont.; Strid & al. 29525!, *Vlachos* 409.
- **Phleum echinatum* Host: Thscap, E. Med.; *Vlachos* 689.
- P. subulatum* (Savi) Ascherson & Graebner: Thscap, St. Med.; (Hal. 1908: 111).
- Poa bulbosa* L.: Hcaesp, Paleotemp.; (M. & P. 1908: 229) *Vlachos* 108, 128, 134, 173, 223.
- **P. timoleontis* Heldr.: Hcaesp, E. Med.; *Vlachos* 427.
- **P. trivialis* L. subsp. *sylvicola* (Guss.) H. Lindb. fil.: Hcaesp, Eu. Med.; *Vlachos* 307.
- Secale montanum* Guss.: Hcaesp, Med.-Mont.; (M. & P. 1908: 231, Hal. 1908: 114, Strid & Tan 1991: 797).
- **Stipa bromoides* (L.) Dörfler: Hcaesp, St. Med.; *Vlachos* 784, 824.
- S. pennata* L. subsp. *pulcherrima* (C. Koch) Freitag: Hcaesp, Europ. (SE.)-S. Siber.; (M. & P. 1908: 220 and Hal. 1908: 111 as *S. pennata* L., Strid & Tan 1991: 828).
- **Vulpia ciliata* Dumort.: Thcaesp, Eu. Med.; *Vlachos* 164.

Results and conclusions

The vascular flora of Mt Boumistaso comprises 502 native taxa, belonging to 288 genera and 64 families (Table 1). The families Asteraceae (Compositae), Leguminosae, Poaceae (Gramineae), Labiateae and Caryophyllaceae account for 208 taxa (41%); each family being represented by more than 30 taxa. These five families are the richest in

Table 1. Numbers of vascular plant taxa in the flora of Mt Boumistaso.

Systematic unit	Families	Genera	Species	Subspecies	sp. & ssp.	%
Pteridophyta	1	3	3	2	5	1.0
Gymnospermae	2	2	1	1	2	0.4
Dicotyledones	52	227	315	88	403	80.3
Monocotyledones	9	56	80	12	92	18.3
Total	64	288	399	103	502	100

Table 2. Life-form spectrum of the flora of Mt Boumistas.

Life-forms		Number	of taxa	%
Therophytes	Th	184		36.6
Th. caespitose	Thcaesp		2	
Th. reptant	Thrept		7	
Th. scapose	Thscap		174	
Th. parasitic	Thpar		1	
Geophytes	G	76		15.1
G. bulbous	Gbulb		47	
G. rhizomatose	Grhiz		26	
G. radicant	Grad		2	
G. parasitic	Gpar		1	
Hemicryptophytes	H	146		29.1
H. caespitose	Hcaesp		29	
H. scapose	Hscap		81	
H. rosulate	Hros		17	
H. reptant	Hrept		2	
H. biennial	Hbienn		16	
H. scandent	Hscand		1	
Chamaephytes	Ch	44		8.7
Ch. suffruticose	Chsuffr		29	
Ch. reptant	Chrept		3	
Ch. fruticose	Chfrut		9	
Ch. succulent	Chsucc		3	
Nano-phanerophytes	Nph	11		2.3
Phanerophytes	Ph	41		8.2
Ph. shrubby	Phcaesp		29	
Ph. arborescent	Phscap		9	
Ph. epiphytic	Phep		1	
Ph. climbing	Phlian		2	
Total		502		100

number of taxa, and this follows with the Greek flora in general (Phitos & al. 1997). 401 taxa (79.8%) were recorded from the mountain for the first time.

The discovery on Mt Boumistas of five Greek endemic taxa deserves special mention:

Cerastium illyricum subsp. *crinitum*, *Galanthus reginae-olgae* subsp. *vernalis* and *Allium callimischon*, are new records for the study area.

Mentha pulegium subsp. *cephalonica* and *Scutellaria rupestris* subsp. *cephallonica*, are new records for the study area, and new records for the Greek mainland. Both taxa were previously known only from the Ionian Islands.

The finding of a new population of the rare *Leucojum valentinum* s.l. in the Greek mainland is important. This species had previously been recorded from the Ionian Islands

Table 3. Chorological spectrum of the flora of Mt Boumistas.

Chorological group	Number of taxa	%
Greek	31	6.2
Balkan	32	6.4
Mediterranean taxa		
Eurytemperate (Eu. Med.)	116	23.1
Stenomediterranean (St. Med.)	74	14.7
East Mediterranean (E. Med.)	77	15.3
West Mediterranean (W. Med.)	1	0.2
Mediterranean-Montane (Med.-Mont.)	10	2.0
E. Mediterranean-Montane (E. Med.-Mont.)	11	2.2
Eurasianic		
Palaeotemperate (Paleotemp.)	25	5.0
Eurasianic s. str. (Euras.)	10	2.0
European-Caucasian (Europ.-Caucas.)	9	1.8
European-S. Siberian (Europ.-S. Siber.)	13	2.6
European (Europ.)	9	1.8
Orophilous European (Orof. Europ.)	5	1.0
Orophilous European-Caucasian (Orof. Europ.-Caucas.)	3	0.6
Boreal		
Circumboreal (Circumbor.)	4	0.8
Eurosiberian (Eurosiber.)	2	0.4
Mediterranean-Turanian (Med.-Tur.)	22	4.3
Mediterranean-Atlantic (Med.-Atl.)	10	2.0
Palaeo-, Palaeosub-tropical (Paleotrop., Paleosubtrop.)	4	0.8
Sub- and Cosmopolitan (Subcosmop., Cosmop.)	34	6.8
Total	502	100

(Zakinthos, Kefalonia, Levkada) and along the road from Astakos to Levkas island in the mainland (Bareka 2001, Bareka & al. 2002). The Boumistas locality expands its distribution range to the east.

The finds of *Avena lusitanica* and *Melica cupanii* (Poaceae) on Mt Boumistas are the first records for these two species in Greece.

The life-form spectrum (Table 2), while relating to an extensive range of altitude, is nev-

ertheless informative. Therophytes are by far the best represented group (36.6%), followed by hemicryptophytes (29.1%). The proportion of geophytes (15.1%), nanophytes and phanerophytes (10.5%) is remarkably high, while chamaephytes occur in smaller percentages.

The high proportion of therophytes essentially confirms the Mediterranean nature of the Mt Boumistas flora, while the significant percentage of phanerophytes indicates a high diversity in forest species. The relatively large percentage of geophytes seems to be associated with the presence of man, especially with the traditional practices of setting fires, timber production and pastoral activities.

The species and subspecies found in the area under study can be assigned to 21 chorological groups (Table 3). As a collective chorological unit, the Mediterranean elements predominate and comprise 289 taxa (57.5%), followed by the Eurasian elements with 66 taxa (13.2%). A large number of taxa of the Mediterranean group can also be found in the Eury-Mediterranean element (116 taxa, 23.1%). The Sub- and Cosmopolitan groups comprise 34 taxa (6.8%), while the Greek and Balkan endemics are represented by 31 (6.2%) and 32 (6.4%) taxa, respectively. Various other chorological groups include fewer taxa.

The prevalence of the Mediterranean element reflects the geographical position and the climatic characteristics of the mountain. Within this element, the Stenomediterranean taxa are well represented, mainly found in woodlands and at lower altitudes. The low percentages of Mediterranean-Montane (4.2%), and orophilous (S & SE) European and (S & SE) European - Caucasian (1.6%) species indicate weak phytogeographical links with the high mountains of southern Europe, especially the Balkans and Caucasus.

The Balkan and Greek endemic categories are each represented by almost the same number of taxa. A similar situation occurs in the flora of Mt Timfristos, a mountain that occupies a rather intermediate phytogeographical position between the floras of northern and southern Greek mainland (Dimitrellos & Christodoulakis 1995, 1999; Vlachos 1996).

Campanula garganica subsp. *acarnanica* (Damboldt) Damboldt is the single exclusive endemic of Mt Boumistas. The other two subspecies of *C. garganica* are confined to Mt Gargano – Italy (subsp. *garganica*) and to the Ionian islands of Kefalonia, Ithaki and Zakynthos [subsp. *cephalonica* (Damboldt) Damboldt], see Damboldt & Phitos (1985).

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References

- Artelari, P. & Kamari, G. 1991: The genus *Sternbergia* in Greece: Taxonomy and Karyology. — Bot. Chron. **10**: 239-251.
- Bareka, E.-P. 2001: Karyosystematic study of the genus *Leucojum* L. in Greece. — MSc Thesis, University of Patras, Patras (in Greek with English summary).

- , Kamari, G. & Phitos, D. 2002: Cytogeographic study of the genus *Leucojum* L. in Greece. — *Bocconeia* **15**: 000-000 (in press).
- Constantinidis, Th. 1997: The Flora and Vegetation of the Mountains Gerania, Pateras & Kitheron (SE Sterea Ellas, Greece). — PhD Thesis, University of Patras, Patras (in Greek with English summary).
- & Yannitsaros, A. 1996: A floristic report of mountains Gerania, Pateras, Kitheron and Pastra (Stereia Ellas, Greece). — *Candollea* **51**: 303-322.
- Davis, P. H. (ed.) 1965: Flora of Turkey and the East Aegean Islands, **1**. — Edinburgh.
- Dimitrellos, G. & Christodoulakis, D. 1995: The flora of Mount Timfristos (N. W. Sterea Ellas, Greece). — *Fl. Medit.* **5**: 9-51.
- & — 1999: The phytogeographical distribution patterns of the flora of Mt Timfristos (N.W. Sterea Ellas, Greece). — *Fl. Medit.* **9**: 215-229.
- Greuter, W., Burdet, H. M. & Long, G. (eds) 1984-1989: Med-Checklist, **1**, **3**, **4**. — Geneve.
- 1995: Studies in Greek *Caryophylloideae: Agrostemma*, *Silene*, and *Vaccaria*. — *Wiildenowia* **25**: 105-142.
- Halácsy, E. v. 1901-1904: Conspectus Flora Graecae, **I-III**. — Lipsiae.
- 1908: Conspectus Flora Graecae. Supplementum. — Lipsiae.
- 1912: Conspectus Flora Graecae. Supplementum secundum. — *Magyar Bot. Lapok* **11**: 114-202.
- Heimerl, A. 1926: Achilleen-Studien I-IV. — *Oesterr. Bot. Z.* **75**: 132-153.
- IGME 1983: Geological map of Greece, 1:500.000. — Athens.
- 1986: Geological map of Greece, 1:50.000. Astakos sheet. — Athens.
- 1987: Geological map of Greece, 1:50.000. Amphiliotria sheet. — Athens.
- Kamari, G. 1976: Karyosystematic study of *Crepis neglecta* L. complex in Greece. — PhD Thesis, University of Patras, Patras (in Greek with English summary).
- 1991: The genus *Fritillaria* in Greece: Taxonomy and Karyology. — *Bot. Chron.* **10**: 253-270.
- Karetsos, G. 2002: Study of the Ecology and Vegetation of Mount Iti. — PhD Thesis, University of Patras, Patras (in Greek with English summary).
- Kokmotos, E. 1999: Contribution to the Flora and Vegetation of Mount Elikon. — MSc Thesis, University of Patras, Patras (in Greek with English summary).
- Maire, R. & Petitmengin, M. 1908: Étude des plantes vasculaires récoltées en Grèce (1906). — *Bull. Soc. Sci. Nancy*, ser. 3, 9 : 151-266, 360-481; and *Matér. Étude Fl. Géogr. Bot. Orient* **4**: 1-239.
- Phitos, D. & Damboldt, J. 1985: Die Flora der Insel Kefallinia (Griechenland). — *Bot. Chron.* **5(1-2)**: 1-204 (in Greek).
- , Strid, A. & Snogerup, S. & Greuter, W. (ed.) 1995: The Red Data Book of Rare and Threatened Plants of Greece. — WWF, Athens.
- , —, —, (ed.) 1997: Flora Hellenica, **1**. — Koenigstein.
- Pignatti, S. (ed.) 1982: Flora d' Italia, **1-3**. — Bologna.
- Raunkjaer, C. 1934: The Life-Forms of Plants and Statistical Plant Geography. — Oxford.
- Strid, A. (ed.) 1986: Mountain Flora of Greece, **1**. — Cambridge.
- 1993: Phytogeographical aspects of the Greek mountain flora. — *Fragm. Flor. Geobot. Suppl.* **2(2)**: 411-433.
- & Kit Tan (ed.) 1991: Mountain Flora of Greece, **2**. — Edinburgh.
- Tutin, T. G., Burges, N. A., Chater, A. O., Edmondson, J. R., Heywood, V. H., Moore, D. M., Valentine, D. H., Walters, S. M. & Webb, D. A. (ed.) 1993: Flora Europaea, **1** (2nd edition). — Cambridge.
- , Heywood, V. H., Burges, N. A., Moore, D. M., Valentine, D. H., Walters, S. M. & Webb, D. A. (ed.) 1968-1980: Flora Europaea, **2-5**. — Cambridge.

- Tzanoudakis, D. 1977: A cytotaxonomic study of the genus *Paeonia* in Greece. — PhD Thesis, University of Patras, Patras (in Greek with English summary).
- 1983: Karyotypes of four wild *Paeonia* species from Greece. — Nord. J. Bot. 3: 307-318.
- UNESCO-FAO 1963: Carte bioclimatique de la Zone méditerranéenne. — Paris.
- Vlachos, A. 1996: Floristic and Ecological Study of Vegetation Types of Mount Vardousia. — MSc Thesis, University of Patras, Patras (in Greek with English summary).

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