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New records to the flora of Mount Erimanthos (NW Peloponnisos, Greece)

Abstract

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An inventory of 473 vascular taxa new to Mount Erimanthos (NW Peloponnisos, Greece) is presented, based on recent field work. Indication of life-form, chorological data and notes on species habitats is provided. 17 taxa are Balkan endemics. 31 taxa are Greek endemics, 5 of which are restricted to Peloponnisos. 9 taxa are new to Peloponnisos and 7 are characterized as Rare or Vulnerable.

Introduction

Mount Erimanthos is situated in NW Peloponnisos between 21⁰ 44' - 22⁰ 01' N and 37⁰ 54' - 38⁰ 03' E (Fig. 1). The massif is formed by several summits: Neraidovouni (alt. 1923 m), Olenos (Granitis, 2222 m), Barba (2169 m), Profitis Ilias (2124 m), Neropouli (1809 m), Pirkako (2050 m), Lepida (1893 m), Psiles Korifes (1878 m), Kallifoni (1996 m) and Tris Ginaikes (1834 m). The first seven of these peaks form the main mass of the mountain. From a geological point of view, Mt. Erimanthos (Olenos) is part of the Olenos – Pindos geotectonic zone (Mountrakis 1985) and the main geological substrates are limestones, radiolarites and flysch (in the western slopes). The orientation of its main mass is NE – SW. Many valleys are open between the high summits and six rivers have their springs there: Selinountas, Piros, Tethreas, Pinios, Erimanthos and Aroanios.

Erimanthos is not a well explored mountain and no detailed studies on its flora and vegetation are available. Previous records are summarized in Halácsy (1900-1904, 1908, 1912), Barbero & Quezel (1976), Strid (1986) and Strid & Tan (1991, 1997). Fragmentary floristic data, dealing with the examination of a genus or a species, have also been found in other sources. The present paper is part of the Ph. D. thesis of the first author, prepared at the Botanical Institute of the University of Patras and entitled “Flora, vegetation and dynamics of the ecosystems of Mt Erimanthos (NW Peloponnisos, Greece)”.

Material and methods

The study is based on collections and field observations carried out by the first author during the years 1996 – 1998. The collections made by Phitos (1967,1968), Tzanoudakis (1972) and Strid & al. (1992) on Mt. Erimanthos were also studied. Herbarium specimens are deposited at the Botanical Museum of the University of Patras (UPA).

The nomenclature follows Greuter & al. (1984 – 1989), Strid & Tan (1997), Strid (1986), Strid & Tan 1991) and Tutin *et al.* (1964 – 1980, 1993); taxonomy of the genus *Taraxacum* and the *Gramineae* family follows the determinations by A. J. Richards (Newcastle) and H. Scholz (Berlin), respectively. The life-form categories follow the Raunkiaer system (1934). For the chorological types Pignatti's (1982) classification in combination with Tutin *et al.* (op. cit.) and Davis (1965-1988) were used. The sequence of families, genera and species in the list of taxa is alphabetical. The collecting localities are given below. There are also corresponding numbers in the list of taxa as well as on the map (Fig. 1).

Collecting localities:

- 1: Region of Drosia and summit Neropouli.
- 2: Summits Olenos and Barba.
- 3: Between Michas and summit Barba.
- 4: Road from Elliniko to Kaloussi.
- 5: River Tethreas valley and adjacent slopes.
- 6: Summit Profitis Ilias.
- 7: Selinountas river, northern of Kato Vlassia.
- 8: Western slopes of the summits Neraidovouni and Melissovouni.
- 9: Between Kertezi and summit Tris Ginaikes.
- 10: Region of Lechouri and summit Scouteli.
- 11: Northern slopes of summit Kallifoni.
- 12: Between Ano Vlassia and summit Lepida.
- 13: Southern of Chryssopigi.
- 14: Between Koumani and summit Melissovouni.
- 15: River Piros, from Kombigadi to Kalanos.
- 16: Between Platanitsa and Agrabela.
- 17: From Platanitsa to the summits Psili Tourla and Lepida.
- 18: Western slopes of summit Profitis Ilias.
- 19: Region of Kriovrissi.
- 20: Region of Kaloussi.
- 21: Road from Kiparissi to Alepochori.
- 22: Summit Tris Ginaikes.
- 23: Between Velimachi and Sparta.
- 24 Summit Kallifoni.
- 25: Between Lakomata and region "Chionotripa".
- 26: Region "Chionotripa". 27: Region of Michas and Tsapournia.
- 28 :Region of Manessi.

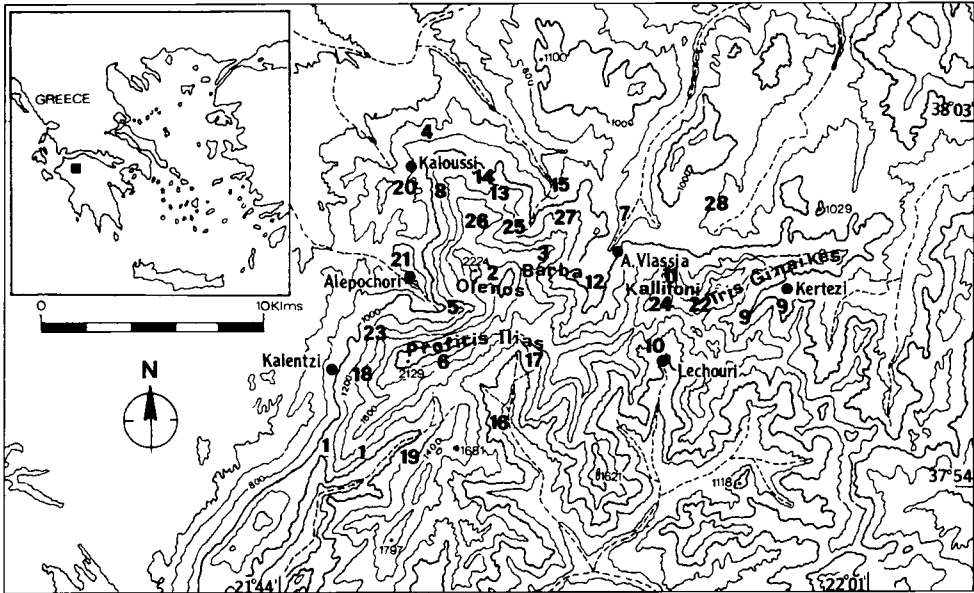


Fig. 1. Topographic map of Mt. Erimanthos. Numbers indicate the collecting localities referred to by code numbers in the list of taxa.

List of taxa

Abbreviations and symbols used: obs. = observation only, no herbarium specimens
 ! = herbarium specimens examined
 * = Greek endemic

PTERIDOPHYTA

Equisetaceae

Equisetum ramosissimum Desf. – G rhiz, Circumbor. -*Platanus orientalis* forest, 800 m (7).

Polypodiaceae

Adiantum capillus-veneris L. – G rhiz., Pantrop. -Waterfall, 1150 m (5).

Asplenium adiantum-nigrum L. – H ros, Paleotemp. -*Abies* forest, 1200 m (3).

A. ceterach L. – H ros, Euroasiat.-temp.-Limestone rocks, 600 m (8).

A. septentrionale (L.) Hoffm. – H ros, Circumbor. -Shady rocks, 2000 m (2).

Phyllis scolopendrium (L.) Newman – H ros, Circumbor.-temp. -Rocky places, 1700 m (6).

Pteridium aquilinum (L.) Kuhn. – G rhiz, Cosmopol.-*Quercus frainetto* forest, 800 m (7).

Polypodium vulgare L. – H ros, Circumbor.- Limestone rocks, 1500 m (18).

Selaginellaceae

Selaginella denticulata (L.) Spring – Ch rept, Steno-Medit.-By a spring, 800 m (8).

GYMNOSPERMAE

Cupressaceae

Juniperus communis L. subsp. *nana* (Willd.) Syme – NP caesp, Euroasiat.- NW-American.-Dry subalpine meadows with sparse trees, 1700 m (24).

Pinaceae

- Pinus halepensis* Miller – P scap, Steno-Medit.-Forming small stands, 500-600 m, obs. (1).
P. brutia Ten. – P scap, E-Medit.-Forest plantation, 800 m obs. (7).
P. nigra Arnold subsp. *pallasiana* (Lamb.) Holmboe – P scap, E-Medit. -Forming a stand, 1000 m, obs. (7).

DICOTYLEDONES**Acanthaceae**

- Acanthus spinosus* L. – H scap, E-Steno-Medit.-*Phlomis fruticosa* communities, 900 m (1).

Anacardiaceae

- Pistacia lentiscus* L. – P caesp, S-Steno-Medit.- Macarones. -Macchie with *Quercus coccifera*, 500 m (4).
P. terebinthus L. – P scap, Euri-Medit. -Cliff faces, 600 m (5).

Apiaceae

- Apium nodiflorum* (L.) Lag. – Hy rad, Paleotemp. -Small streams by forest roads, 850 m (8).
Bupleurum glumaceum Sm. – T scap, Balkan -*Phlomis fruticosa* phrygana, 800 m (1).
B. rotundifolium L. – T scap, Centroasiat. -Rocky places, 1600 m (6).
Chaerophyllum temulum L. – T scap/H bienn, Euroasiat. -*Platanus* forest clearings, 800 m (7).
Conium maculatum L. – H scap, Subcosm. -Village Dendra, roadsides, 600 m (15).
Daucus carota L. – H scap, Subcosm. -*Juglans regia* plantations, 900 m (12).
Eryngium campestre L. – H scap, Paleotemp. -Forest clearings, 1100 m (3).
Ferulago nodosa (L.) Boissier – H scap, NE-Medit. -Borders of *Platanus orientalis* forest, 800 m (7).
Foeniculum vulgare Miller – H scap, Medit. -Village Vlassia, roadsides, 800 m (7).
Heracleum sphondylium L. subsp. *sphondylium* – H scap, Paleotemp. -*Platanus orientalis* forest, 780 m (7).
Laserpitium siler L. subsp. *garganicum* (Ten.) Arcangeli – H scap, Balkan-It. -Limestone rocks, 1300 m (3).
Oenanthe silaifolia Bieb. – H scap, Medit.-Atl. -*Platanus orientalis* forest, 800 m (7).
Opopanax hispidus (Friv.) Griseb. – H scap, E-Medit. -*Abies* forest, on limestone rocks 1300 m (11).
Orlaya daucooides (L.) Greuter – T scap, E-Medit. -*Phlomis fruticosa* phrygana, 800 m (1).
**Peucedanum achaicum* Halácsy – H scap, Endem. -Limestone cliff faces, 700 m (5).
Pimpinella peregrina L. – H scap, Euri-Medit. -Clearings of macchie with *Quercus coccifera*, 1000 m (13).
P. tragium Vill. subsp. *tracium* – Ch suffr, Medit.-Turan. -*Astragalus creticus* community, 1750 m (2).
Scandix macroryncha C.A.Mayer – T scap, S-Europe-SW-Asiat. -*Festuca* communities, 1900 m (2).
S. pecten-veneris L. – T scap, Paleotemp. -*Phlomis fruticosa* phrygana 900 m (1).
**Seseli aroanicum* Boiss.& Heldr. –: H scap, Endem. -Limestone rocks, 1400 m (8).
Smyrniium rotundifolium Miller – H bienn., E-Medit. -Fields, 750 m (14).
Tordylium apulum L. – T scap, Steno-Medit. -*Phlomis fruticosa* phrygana, 750 m (1).

Torilis arvensis (Hudson) Link subsp. *heterophylla* (Guss.) Thell. – T scap, Euri-Medit. - Roadsides, 1300 m (9).

Apocynaceae

Vinca major L. – Ch rept, Euri-Medit. -Village Drosia, roadsides, 600 m (1).

V. herbacea Waldst. & Kit. – G rhiz, Europ.-Orient.-Turán. -Macchie with *Quercus coccifera*, 600-1000 m (14).

Asclepiadaceae

Vincetoxicum hirundinaria Medicus subsp. *nivale* (Boiss. & Heldr.) Markgraf – H scap, Balkan -Rocky places, 1700 m (6).

Asteraceae

Achillea fraasii Schultz – H scap, Balkan-An. -Dry subalpine meadows, 1700 m (6).

A. setacea Waldst. & Kit. – H scap, SE-Europ. -Meadows, 1500 m (6).

Anthemis arvensis L. – T scap, Subcosm. -Sparse *Phlomis fruticosa* phrygana, 800-1200 m (8).

A. chia L. – T scap, NE-Medit. -Meadows, 700 m (8). *A. setacea* Waldst. & Kit.: H scap, SE-Europ.-Meadows, 1500 m (6).

A. tinctoria L. subsp. *parnassica* (Boiss. & Heldr.) Franzen – H scap, Orof.-E-Steno-Medit. -*Phlomis fruticosa* phrygana, 1000 m (8).

Arctium minus (Hill) Bernh. – H bienn, Europ. -Roadsides, 1000 m (18).

Bellis annua L. – T scap, Euri-Medit. -Meadows, 850 m (8).

Carlina graeca Heldr. & Sart. – H scap, NE-Steno-Medit. -*Genista acanthoclada* phrygana, 550 m (4).

Centaurea calcitrapa L. – H bienn, Euri-Medit. -Roadsides, 1200 m (19).

C. cyanus L. – T scap, Subcosm. -*Phlomis fruticosa* phrygana, 800 m (5).

C. solstitialis L. subsp. *solstitialis* – T scap, Steno-Medit. -Roadsides and meadows, 1100 m (12).

C. spruneri Boiss. & Heldr. subsp. *guicciardii* (Boiss.) Hayek – H scap, Balkan -*Quercus coccifera* low scrub, 900 m (8).

Chondrilla juncea L. – H scap, Paleotemp. -Roadsides, 550 m (4).

Cichorium intybus L. – H scap, Cosmopol. -Roadsides, 650 m (14).

Cirsium creticum (Lam.) D'Urv – H scap, NE-Medit. -*Platanus orientalis* forest, 900 m (16).

**C. hypopsilum* Boiss. & Heldr. – H scap, Endem. -*Astragalus creticus* communities, 1800 m (2).

C. vulgare (Savi) Ten. – H scap. Paleotemp. -Forest road, 1200 m (3).

Crepis dioscoridis L. – T scap, Balkan -Roadsides, 1100 m (12).

C. foetida L. – T scap, Euri-Medit. -Sparse scrub, 1000 m (8)

C. sancta L. – Babcock, T scap, Euri-Medit. -Screes, 1000 m (8).

Crupina crupinastrum (Moris) Vis. – T scap, Euri-Medit. -By a stream, 1200 m (17).

Echinops ritro L. – H scap, Euri-Medit. -Forest paths, 800 m (5).

Hedypnois cretica L. – Dum.-Courset: T scap., Steno-Medit. -*Phlomis fruticosa* phrygana, 900 m (1).

Hieracium bauhinii Schultes ex Besser – H scap, SE-Europ.-S-Siber. -*Platanus orientalis* sparse stands, 650 m (5).

H. pilosella L. – H ros, Europ.-Caucas. -Meadows, 1900 m (2).

- Hyoseris scabra* L. – T ros, Steno-Medit. -Sparse *Genista acanthoclada* phrygana, 500 m (20).
Hypochoeris achyrophorus L. – T scap, Steno-Medit. -*Phlomis fruticosa* phrygana, 800 m (1).
 **Inula verbascifolia* (Willd.) Hausskn. subsp. *parnassica*: (Boiss. & Heldr.) Tutin – Ch suffr, Endem. -Cliff faces, 500-900 m (8).
Jurinea mollis (L.) Reichenb. – H scap, Europ. -Cliff faces, 1200m., (8).
Lactuca viminea (L.) J. & C. Presl subsp. *ramosissima* (All.) Bonnier – H bienn, Euroasiat. -Screes, 900-1300 m (8).
Leontodon tuberosus L. – H ros, Steno-Medit. -*Quercus frainetto* forest clearings, 800 m (7).
Logfia arvensis (L.) J. Holub – T scap, Euri-Medit.-Sudsiber. -Dry subalpine meadows, 1600 m (6).
Mycelis muralis (L.) Dumort. – H scap, Europ.-Caucas. -*Abies* forest, 1300 m (11).
Onopordum bracteatum Boiss. & Heldr. – H scap, E-Steno-Medit. -Forest roadsides, 1200 m (3).
O. illyricum L. – H bienn/ H scap, Steno-Medit. -Roadsides, 500 m (4).
Phagnalon graecum Boiss. – Ch suffr, NE-Medit. -Cliff faces, 500 m (21).
Picnomon acarna (L.) Cass. – T scap, Euri-Medit.- *Phlomis fruticosa* phrygana, 1000 m (1).
Picris echioides L. – T scap, Euri-Medit. -Roadsides, 1000 m (12).
Ptilostemon chamaepeuce (L.) Less. – Ch frut, E-Medit. -Cliff faces, 550 m (20).
P. stellatus (L.) Greuter – T scap, Steno-Medit. -*Genista acanthoclada* phrygana, 600 m (4).
Pulicaria dysenterica (L.) Bernh. – H scap, Paleotemp. -Stream in village Kertezi, 850 m (9).
Rhagadiolus stellatus (L.) Gaertner – T scap, Euri-Medit. -*Quercus coccifera* sparse and low scrub, 900 m (13).
Scolymus hispanicus L. – H scap, Euri-Medit. -Roadsides, 600 m (4).
 **Scorzonera crocifolia* Sibth. & Sm. – G rhiz, Endem. -*Quercus coccifera* low scrub, 800 m (8).
S. hispanica L. – H scap, SE-Europ.-S-Siber. -*Quercus coccifera* low scrub, 800 m (8).
S. mollis Bieb.subsp. *mollis* – G rhiz, E-Medit.-Caucas. -Open rocky place, 1300 m (5).
Senecio macedonicus Griseb. – H scap, E-Steno-Medit. -*Astragalus creticus* communities, 1700 m (2).
Sonchus arvensis L. subsp. *uliginosus* (Bieb.) Nyman – H scap, Eurosiber. -Roadsides, 1200 m (3).
Tanacetum parthenium (L.) Schultz – H scap, SE-Europ.-W-Asiat. -Stream in village Kertezi, 850 m (9).
Taraxacum aleppicum Dahlst. – H ros, E-Medit. -Sparse and low scrub, 800 m (8).
T. apollonis Dahlst. – H ros, NE-Medit. -*Abies* forest, 1100 m (19).
T. capricum V. Soest – H ros, S-Europ. -By a spring, 800 m (14).
 **T. cylleneum* Furncranz – H ros, Endem. -Meadows, 1800-1900 m (2).
T. delphicum Dahlst. – H ros, Balkan -Meadows, 800 m (8).
T. cf. epirensis Van Soest – H ros, S-Europ. -*Abies* forest and roadsides, 1200 m (3).
 **T. gionense* A.J.Richards – H ros, Endem. -Meadow, 1100 m (3).
T. gracilens Dahlst. – H ros, Balkan -Meadow, 1400 m (19).
T. hellenicum Dahlst. – H ros, E-Medit. -Meadow, 1600 m (24).
T. minimum (Brig.) Terrac. – H ros, Medit.-Mont. -Sparse and low scrub of *Quercus coccifera*, 900 m (8).
T. cf. parnassicum Dahlst. – H ros, Balkan -*Abies* forest, 1300 m (19).

- T. scaturiginosum* G. Hagl. – H ros, E-Medit. -By a spring, 800 m (14).
T. scolopendrium Dahlst. – H ros, E-Steno-Medit. -Meadow, 850 m (8).
Tragopogon crocifolius L.subsp. *samaritani* (Heldr. & Sart.) I. B. K. Richardson – H ros, Orof-SE-Europ. -Dry subalpine meadows, 1500 m (6).
Tussilago farfara L. – G rhiz, Paleotemp. -Stream banks, 700 m (5).
Urospermum picroides (L.) Scop. ex F. W. Schmidt – T scap, Euri-Medit. -*Phlomis fruticosa* phrygana, 900 m (1).
Xanthium spinosum L. – T scap, Subcosm. -Roadsides, 1000 m (18).

Boraginaceae

- Asperugo procumbens* L. – T scap, Paleotemp. -Sparse scrub, 1100 m (8).
Borago officinalis L. – T scap, Euri-Medit. -Roadsides, 750 m (5).
Cerithe minor L. subsp. *minor* – T scap, SE-Europ. -Sparse macchie with *Quercus coccifera*, 900 m (19).
Cynoglossum officinale L. – H bienn, Eurosiber. -*Pinus halepensis* plantations, 750 m (8).
Echium italicum L.subsp. *biebersteinii* (Lacaita) Greuter & Burdet – H bienn, Euri-Medit. -Roadsides, 550 m (4).
Heliotropium europaeum L. – T scap, Euri-Medit.-Turan. -Fields, 550 m (4).
Nonea obtusifolia (Willd.) DC. – T scap, E-Medit. -Clearings of *Quercus coccifera* macchie, 600 m (4).
Onosma frutescens Lam. – Ch suffr, E-Medit -Cliff faces, 800-1200 m (8).
Symphytum bulbosum Schimper – G rhiz, SE-Europ. -*Platanus orientalis* stand, 700 m (14).

Campanulaceae

- Campanula albanica* Witasek subsp. *albanica* – H scap, Balkan -*Festuca* communities, 2000 m (2).
C. trachelium L. subsp. *athoa* (Boiss. & Heldr.) Hayek – H scap, Steno-Medit.-Orient. -Rocky places, 1100 m (1).
Legousia speculum-veneris (L.) Chaix – T scap, Euri-Medit. -*Phlomis fruticosa* phrygana, 800 m (5).

Caprifoliaceae

- Lonicera etrusca* G. Santi – P lian, Euri-Medit. -*Quercus frainetto* forest, 800 m (7).
L. nummulariifolia Jaub. & Spach subsp. *nummulariifolia* – NP caesp, SW-Asiat. -Shady rocks in *Abies* forest, 1350 m (3), (Strid no 33560, UPA!).
Sambucus ebulus L. – G rhiz, Euri-Medit. -Village Kertezi, roadsides, 820 m (9).
S. nigra L. – P caesp, Europ.-Caucas. -River banks, 700 m (5).

Caryophyllaceae

- Agrostemma githago* L. subsp. *githago* – T scap, Subcosm. -Fields, 600 m (15).
 **Dianthus androsaceus* (Boiss. & Heldr.) Hayek – H caesp, Endem. -Meadow, 1900 m (24).
 **D. serratifolius* Sm. subsp. *serratifolius* – Ch suffr, Endem. -Dry subalpine meadows, 1900 m (24).
Holosteum umbellatum L. – T scap, Paleotemp. -Meadow, 800 m (8).
Minuartia juniperina (L.) Petitmegin – Ch suffr, NE-Medit.-Orient. -Screes, 1800 m (24).
M. mediterranea (Ledeb.) K. Maly – T scap, Euri-Medit. -*Quercus coccifera* low scrub, 900 m (5).
Moenchia mantica (L.) Bartl. – T scap, N-Medit. -Fields, 600 m (15).

Petrorhagia dubia (Rofin.) G. Lopez & Romo – T scap, Euri-Medit. -Sparse *Quercus coccifera* scrub in rocky places, 1200 m (1).

**P. graminea* (Sm.) P. W. Ball & Heywood – H scap, Endem. -*Genista acanthoclada* phrygana, 600 m (4).

Sagina procumbens L. – H caesp, Subcosm. -Meadow with *Alopecurus gerardii*, 1850 m (2).

Saponaria calabrica Guss. – T scap, SE-Europ. -*Phlomis fruticosa* phrygana, 1100 m (17).

Silene bupleuroides L. subsp. *staticifolia* (Sibth. & Sm.) Chowdh. – H caesp, Balkan-An. -Dry subalpine meadows, 1500 m (22).

S. caesia Sm. – H scap, Balkan -Screes, 1000 m (8) ; 1800 m (2).

S. gallica L. – T scap, Subcosm. -Clearings of *Quercus coccifera* macchie, 850 m (8).

S. graeca Boiss. & Spruner – T scap, Balkan -Sparse scrubs, 550 m (21).

S. latifolia Poiret – H bienn, Steno-Medit. -Abandoned fields, 1000 m (25).

S. multicaulis Guss. subsp. *multicaulis* – H scap, Balkan-It. -*Festuca* communities, 2000 m (26).

S. vulgaris (Moench) Garcke subsp. *prostrata* Schinz & Thell. – H scap, S-Europ. -*Festuca* communities, 1500 m (8).

Stellaria media L. Vill. – T rept, Cosmopol. -*Abies* forest, 1200 m (11).

Cistaceae

Cistus creticus L. subsp. *creticus* – Ch frut, E-Steno-Medit. -*Quercus frainetto* stands, 800 m (7).

C. salvifolius L. – Ch frut, Euri-Medit. -*Abies* forest, 850 m (27).

Fumana thymifolia (L.) Webb – Ch suffr, Euri-Medit. -*Genista acanthoclada* phrygana, 600 m (4).

Convolvulaceae

Convolvulus althaeoides L. – H scand, Steno-Medit. -*Phlomis fruticosa* phrygana, 800 m (1).

C. arvensis L. – G rhiz, Subcosm. -Roadsides, 900 m (1).

Cuscuta epithymum (L.) L. subsp. *kotschyi* (Desmoulins) Arcangeli – T par, Europ. -Parasite on *Eryngium amethystinum*; *Astragalus creticus* communities, 1500 m (3).

Ipomoea purpurea Roth – T scap, Neotrop. -Village Kaloussi, roadsides, 800 m (20).

Cornaceae

Cornus mas L. – P scap, SE-Europ.-Pont. -Stand of *Ulmus* and *Carpinus orientalis*, 600 m (23).

Corylaceae

Corylus colurna L. – P caesp, SE-Europ.-Caucas. -Limestone rocks, 1450 m (6).

Crassulaceae

Sedum hispanicum L. – T scap, Paleotemp. -Shady places on limestone rocks, 1800 m (6).

S. sediforme (Jacq.) Pau – Ch succ, Steno-Medit. -Cliff faces, 550 m (21).

Umbilicus chloranthus Boiss. – G bulb, E-Steno-Medit. -*Abies* forest, 1000 m (9).

U. horizontalis (Guss.) DC – G bulb, Steno-Medit. -Village Greveno, roadsides, 600 m (23).

Cruciferae

Alliaria petiolata (MB) Cavara & Grande – H bienn, Paleotemp. -Village Drosia, roadsides, 700 m (1).

Alyssum murale Waldst. & Kit. – Ch suffr, E-Medit. -Open rocky places, 1500 m (22).

- Arabis glabra* (L.) Bernh.: H bienn, Arctic-Alp. -*Abies* forest, 1250 m (9).
A. verna (L.) R. Br. – T scap, Steno-Medit. -Clearings of *Quercus coccifera* macchie, 700 m (4).
Berteroa obliqua (Sibth. & Sm.) DC – H scap, NE-Medit. -Meadows, 900 m (7).
Calepina irregularis (Asso) Thell. – T scap, Medit.-Turan. -Clearings of *Quercus coccifera* macchie, 700 m (4).
Capsella bursa-pastoris (L.) Medicus subsp. *bursa-pastoris* – T scap, Cosmopol. - Meadows, 1200 m (19).
Cardamine graeca L. – T scap, N-Medit. -*Abies* forest, 1000 m (3).
C. hirsuta L. – T scap, Cosmopol. -*Abies* forest, 1000 m (3).
Cardaria draba (L.) Desv. subsp. *draba* – H scap, Medit.-Turan. -Forest roadsides, 1100 m (18).
Clypeola jonthlaspi L. – T scap, Euri-Medit. -Sparse and low scrub of *Quercus coccifera*, 1000 m (8).
 **Draba lacaitae* Boiss. – Ch pulv, Endem. -Cliff faces, 1700 m (2).
Erophila praecox (Steven) DC – T scap, Circumbor. -Meadows, 1300 m (8).
E. verna (L.) Chevall. subsp. *verna* – T scap, Circumbor. -Meadows, 1200 m (12).
 **Erysimum graecum* Boiss. & Heldr. – H scap, Endem. -Fields, 900 m (16).
Hesperis laciniata All. – H scap, N-Medit.-Mont. -Cliff faces, 1200 m (1).
Lepidium graminifolium L. – H scap, Euri-Medit.- Roadsides, 1100 m (12).
Lunaria annua L. subsp. *annua* – H scap, SE-Europ. -Village Koumani, roadsides, 700 m (14).
Nasturtium officinale R. Br. – H scap, Cosmopol. -Spring, 750 m (1).
Rapistrum rugosum (L.) All. subsp. *orientale* (L.) Arcangeli – T scap, Euri-Medit. -Old fields, 900 m (23).

Cucurbitaceae

- Ecbalium elaterium* (L.) A. Richard – G bulb, Euri-Medit. -Roadsides, 750 m (25).

Dipsacaceae

- Cephalaria ambrosioides* (Sm.) Roemer & Schultes – H scap, Balkan -Cliff faces, 900 m (8).
Dipsacus fullonum L. – H bienn, Euri-Medit. -Village Alepochori, roadsides, 560 m (21).
Knautia integrifolia (L.) Bertol. – T scap, Euri-Medit. -Phrygana, 530 m (21)

Euphorbiaceae

- Euphorbia apios* L. – G bulb, NE-Medit. - Macchie with *Quercus coccifera*, 800 m (1).
E. characias L. subsp. *wulfenii* (Hope ex Koch) A.R. Sm. – Ch frut, Steno-Medit. - Limestone rocks, 1000 m (1)
E. helioscopia L. – T scap, Cosmopol. -Village Kalentzi, roadsides, 900 m (18).
Mercurialis annua L. – T scap, Paleotemp. -*Abies* forest clearings, 1200 m (18).

Fagaceae

- Castanea sativa* Miller – P scap, S-Europ. -Forming a forest, 800-1000 m (9).
Quercus ilex L. – P scap, Steno-Medit. -Dense macchie, 750 m (20).

Gentianaceae

- Blackstonia perfoliata* (L.) Hudson subsp. *perfoliata* – T scap, Euri-Medit. -Stream, 800 m (1).

Geraniaceae

- Geranium columbinum* L. – T scap, Paleotemp. -*Phlomis fruticosa* phrygana, 900 m (1).
G. pyrenaicum Burm. – H scap, Euri-Medit. -Dry subalpine meadows, 1800 m (2).
G. rotundifolium L. – T scap, Paleotemp. -Forest roadsides, 600 m (21).
Erodium cicutarium (L.) L'Her – T scap, Subcosm. -Meadow, 800 m (27).

Guttiferae

- Hypericum empetrifolium* Willd. – Ch frut, E-Medit. -Macchie with *Quercus coccifera*, 800 m (5).
H. perforatum L. – H scap, Subcosm. -Village Drosia, roadsides, 650 m (1).

Lamiaceae

- Ajuga reptans* L. – H rept, Europ.-Caucas. -Stream banks in village Drosia, 650 m (1).
Ballota acetabulosa (L.) Bentham – Ch frut, NE-Medit. -*Phlomis fruticosa* phrygana, 800 m (8).
B. nigra L. subsp. *uncinata* (Fiori & Beguinot) Patzak – H scap, Steno-Medit. -Village Ano Vlassia, roadsides, 900 m (12).
Calamintha nepeta (L.) Savi subsp. *glandulosa* (Req.) P. W. Ball – H scap, Euri-Medit.-Mont. -Roadsides, 850 m (16).
Coridothymus capitatus (L.) Reichenb. fil. – Ch frut, E-Steno-Medit. -Sparse *Genista acanthoclada* phrygana, 500 m (20).
Lamium amplexicaule L. – T scap, Paleotemp. -Meadow, 1200 m (12).
L. bifidum Cyr. – T scap, Steno-Medit. -Rock bases, 550 m (4).
L. garganicum L. subsp. *striatum* (Sibth. & Sm.) Hayek – H scap, NE-Medit. -*Astragalus creticus* communities, 1800 m (2).
 **Marrubium cylleneum* Boiss. & Heldr. – H scap, Endem. -Dry subalpine meadow, 1700 m (24).
 **M. velutinum* Sibth. & Sm. – H scap, Endem. -Dry subalpine meadow, 1800 m (2).
M. vulgare L. – H scap, Subcosm. -Roadsides, 700 m (25).
Melittis melissophyllum L. – H scap, Europ. -*Castanea sativa* forest, 850 m (9).
Mentha pulegium L. subsp. *pulegioides* (Sieb.) Kokkini – H scap, Paleotemp. -By a stream, 600 m (5).
Mentha spicata L. subsp. *condesata* (Briq.) Greuter & Burdet – H scap, E-Medit. -By river Tethreas, 600m., (5).
 **Nepeta argolica* Bory & Chaub. subsp. *argolica* – Ch suffr. Endem. -Screes, 1800 m (24).
Origanum vulgare L. subsp. *viridulum* (Martin-Donos) Nyman – H scap, E-Medit.-Asiat. -*Quercus coccifera* macchie, 800 m (5).
Prunella laciniata (L.) L. – H scap, Paleotemp. -*Abies* forest, 850 m (27).
P. vulgaris L. – H scap, Circumbor. -River banks, 1000 m (12).
Salvia argentea L. – H scap, Steno-Medit. -Dry subalpine meadow, 2000 m (2).
S. pomifera L. subsp. *calycina* (Sm.) Hayek – P caesp, Steno-Medit.-Orient. -Limestone rocks, 550 m (21).
S. verbenaca L. – H scap, Medit.-Atl. -*Abies* forest clearings, 1100 m (3).
S. verticillata L. – H scap, Eurosiber.-Caucas. -*Phlomis fruticosa* phrygana, 1150 m (17).
S. virgata Jacq. – H scap, E-Medit. -Meadow, 600 m (23).
S. viridis L. – T scap, Euri-Medit. -Sparse phrygana, 550 m (21).

- **Satureja parnassica* Boiss. subsp. *parnassica* – Ch suffr, Endem. -Cliff faces, 2100 m (2).
 **Scutellaria rupestris* Boiss. & Heldr. subsp. *parnassica* (Boiss.) Greuter & Burdet – H scap, Endem. -*Juniperus foetidissima* communities, 1650 m (26).
Stachys cretica L. subsp. *cretica* – H scap, E-Medit. -Roadsides and meadows, 600 m (23).
S. spinulosa Sm. – T scap, E-Medit. -Roadsides, 520 m (21).
Teucrium capitatum L. – Ch suffr, Steno-Medit. -*Phlomis fruticosa* phrygana, 700 m (1).
T. flavum L. subsp. *helenicum* Rech. fil. – Ch frut, Steno-Medit.-Orient. -*Quercus coccifera* macchie, 750 m (25).
T. scordium L. subsp. *scordioides* (Schreber) Arcangeli – H scap, Steno-Medit.-Turan. - Wet places, 600 m (5).

Lauraceae

- Laurus nobilis* L. – P caesp, Steno-Medit. -*Platanus orientalis* forest, 600 m (15).

Leguminosae

- Anthyllis hermanniae* L. – Ch frut, NE-Steno-Medit. -Phrygana, 500 m (21)
A. vulneraria L. subsp. *bulgarica* (Sagorski) Cullen – H scap, Balkan -Limestone rocks, 1200 m (1).
Astragalus hamosus L. – T scap, Euri-Medit.-Turan. -Meadow, 1200 m (19).
A. lusitanicus Lam. subsp. *orientalis* Chater & Meikle – H scap, E-Medit. -*Quercus coccifera* low scrub, 900 m (8).
A. monspessulanus L. subsp. *monspessulanus* – H ros, Euri-Medit. -*Quercus coccifera* low scrub, 800 m (8).
Bituminaria bituminosa (L.) Stirton – H scap, Euri-Medit. -Roadsides, 700m., (23).
Calicotome villosa (Poirot) Link – P caesp, Steno-Medit. -Phrygana, 500 m (21).
Cercis siliquastrum L. – P scap, Euri-Medit. -Macchie, 600 m (15).
Chamaecytisus hirsutus (L.) Link subsp. *hirsutus* – Ch suffr, Europ.-Siber. -*Abies* forest, 800 m (27)
Colutea arborescens L. subsp. *arborescens* – P caesp, Euri-Medit. -Macchie, 600 m (15).
Coronilla scorpioides (L.) Koch – T scap, Euri-Medit. -Meadow, 530 m (21).
Cytisus scoparius (L.) Link – P caesp, Subatl. -Roadsides, 950 m (9).
Dorycnium hirsutum (L.) Ser – Ch suffr, Euri-Medit. -*Quercus coccifera* low scrub, 700 m (8).
Genista acanthoclada DC – Ch frut, Steno-Medit. -Forming phryganic communities, 600 m (4).
Hippocrepis unisiliquosa L. – T scap, Euri-Medit. -Phrygana, 600 m (5).
Hymenocarpus circinnatus (L.) Savi – T scap, Euri-Medit. -Sparse low scrub, 700 m (25).
Lathyrus aphaca L. – T scap, Euri-Medit. -*Quercus coccifera* low scrub, 800 m (25).
L. digitatus (MB.) Fiori – G rhiz, Medit.-Pont. -*Quercus coccifera* low scrub, 600 m (4).
L. grandiflorus Sm. – G rhiz, NE-Medit. -Forest roadsides, 950 m (9).
L. nissolia L. – T scap, Euri-Medit. -*Abies* forest clearings, 1200 m (19).
L. setifolius L. – T scap, Euri-Medit. -*Quercus coccifera* low scrub, 800 m (5).
Medicago orbicularis (L.) Bart. -T scap, Euri-Medit. -Low scrub, 500 m (21).
M. polymorpha L. – T scap, Subcosm. -Meadows, 1000m (3).
M. sativa L. subsp. *falcata* (L.) Arcangeli – H scap, Euroasiat. -Abandoned fields, 1100 m (9).
M. rigidula (L.) All. – T scap, Euri-Medit. -Meadow, 1000 m (18), (Phitos no 6017, UPA!)

- **Melilotus graecus* (Boiss. & Spruner) Larssen – T scap, Endem. -Roadsides, 800 m (8).
M. neapolitanus Ten. – T scap, Steno-Medit. -Roadsides, 800 m (8).
Onobrychis aequidentata (Sm.) Dum.-Urville – T scap, E-Steno-Medit. -*Genista acanthoclada* phrygana, 850m., (19).
O. alba (Waldst. & Kit.) Desv. subsp. *laconica* (Orph. ex Boiss.) Hayek – Ch suffr, Balkan-It. -Macchie clearings, 850 m (19).
O. caput-galli (L.) Lam. – T scap, Euri-Medit. -*Genista acanthoclada* phrygana, 600 m (4).
 **O. ebenoides* Boiss. & Spruner – Ch suffr, Endem. -*Genista acanthoclada* phrygana, 600 m (4).
Ononis spinosa L. subsp. *antiquorum* (L.) Arcangeli – Ch suffr, Euri-Medit. -*Abies* forest, 1200 m (19).
O. viscosa L. subsp. *breviflora* (DC.) Nyman – T scap, S-Medit. -*Quercus coccifera* low scrub, 900 m (5).
Scorpiurus muricatus L. – T scap, E-Medit. -Meadows, 600 m (21).
Securigera securidaca (L.) Degen & Dörfler – T scap, Euri-Medit. -Roadsides, 530 m (21).
Spartium junceum L. – P caesp, Euri-Medit. -Degraded macchie, 600 m (21).
Trifolium angustifolium L. – T scap, Euri-Medit. -Meadows, 600 m (5).
 **T. aurantiacum* Boiss. & Spruner – T scap, Endem. -*Abies* forest, 900 m (27).
T. campestre Schreber – T scap, Paleotemp. -*Abies* forest, 900 m (27).
T. grandiflorum Schreber – T scap, E-Medit. -*Abies* forest, 800 m (14).
T. medium L. subsp. *balcanicum* Velen. – G rhiz, Balkan -*Abies* forest, 1000 m (12).
T. nigrescens Viv. subsp. *nigrescens* – T scap, Euri-Medit. -Village Kriovrissi, roadsides, 1100 m (19).
T. physodes Steven ex Bieb. – H scap, Euri-Medit. -*Abies* forest, 900 m (27).
T. pratense L. – H scap, Subcosm. -Stream banks, 1000 m (19) ; village Drosia, roadsides, 650 m (1).
T. repens L. – H rept, Subcosm. -Meadow, 1200 m (3).
T. scabrum L. – T scap, Euri-Medit. -*Quercus frainetto* forest, 850 m (28).
T. stellatum L. – T scap, Euri-Medit. -Forest roadsides, 1100 m (12).
T. subterraneum L. – T rept, Euri-Medit. -Meadow, 850 m (8).
Trigonella gladiata MB. – T scap, Euri-Medit. -Open stony places, 1400 m (19).
Tripodion tetraphyllum (L.) Fourr. – T scap, Steno-Medit. -Sparse low scrub, 600 m (21).
Vicia hybrida L. – T scap, Euri-Medit. -Abandoned fields, 850 m (13).
V. tenuifolia Roth subsp. *tenuifolia* – H scap, Europ.-W-Asiat. -*Juniperus foetidissima* open stands, 1550 m (22).
V. villosa Roth subsp. *eriocarpa* P. W. Ball – T scap, Steno-Medit.-Orient. -Roadsides, 600 m (23).

Linaceae

- Linum aroanicum* Boiss. & Heldr. – H scap, Steno-Medit.-Orient. -*Festuca cyllenica* communities, 1400 m (8).
L. strictum L. – T scap, Steno-Medit. -*Genista acanthoclada* phrygana, 550 m (4).

Lythraceae

- Lythrum junceum* Banks & Solander – H scap, Steno-Medit.-Macarones. -Stream banks, 750 m (8).

Malvaceae

Althaea officinalis L. – H scap, Subcosm. -*Phlomis fruticosa* phrygana, 800 m (5).

Malva neglecta Wallr. – T scap, Paleotemp. -Highest summit, 2220 m (2).

M. sylvestris L. – H scap, Subcosm. -Roadsides, 550 m (21).

Oleaceae

Fraxinus ornus L. – P scap, Euri-Medit.-Pont. -*Quercus coccifera* dense macchie with *Abies* trees, 950 m (14).

Onagraceae

Epilobium parviflorum Schreber – H scap, Paleotemp. -By a stream, 650 m (1).

Orobanchaceae

Orobanche major L. – T par, Centroeurop.-S-Siber. -Dry subalpine meadow, 1750 m (6).

O. minor Sm. – T par, Subcosm. -*Platanus orientalis* forest, 800 m (7).

O. ramosa L. subsp. *ramosa* – T par, Paleotemp. -*Platanus orientalis* stand, 700 m (5).

Oxalidaceae

Oxalis pes-caprae L. – G bulb, S-African. -Fields, 750 m (14).

Papaveraceae

Corydalis densiflora J. & C. Presl – G bulb, Centroeurop. -Melting snow, 1800 m (2) ; 1600 m (24).

Papaver rhoeas L. – T scap, Paleotemp. -Fields, 500 m (4).

Plantaginaceae

Plantago holosteum Scop. – H ros / Ch suffr, SE-Europ. -Meadows with *Alopecurus gerardii*, 1900 m (2).

Plumbaginaceae

Plumbago europaea L. – Ch suffr, Euri-Medit. -Village Chrisopigi, roadsides, 700 m (13).

Polygalaceae

Polygala monspeliaca L. – T scap, Euri-Medit. -*Quercus coccifera* macchie, 600 m (4).

Polygonaceae

Rumex pulcher L. subsp. *pulcher* – H scap, Euri-Medit. -*Festuca cyllenica* communities, 1400 m (5).

Primulaceae

Anagallis arvensis L. – T rept, Subcosm. -Meadow, 530 m (4).

Cyclamen hederifolium Aiton – G bulb, Euri-Medit. -*Abies cephalonica* forest, 1100 m (3).

Lysimachia atropurpurea L. – H scap, Balkan-An. -Roadsides, 550 m (4).

Primula veris L. subsp. *columnae* (Ten.) Ludi – H ros, N-Medit.-Mont. -Limestone rock crevices, 2100 m (2).

Ranunculaceae

Anemone pavonina Lam. – G bulb, Steno-Medit. -Forest roadsides, 600-700 m (5).

Nigella damascena L. – T scap, Euri-Medit. -Fields, 550 m (21).

Ranunculus brevifolius Ten. – G rhiz, Orof.-SE-Europ. -Rocky habitats, 1900 m (2), (Phitos no 8508, UPA!)

R. brutius Ten. – H scap, Orof.-SE-Europ. -Rock bases, 1200 m (5).

- R. ficaria* L. subsp. *ficariiformis* Roy & Fouc. – G bulb, Euri-Medit. -*Quercus coccifera* macchie, 600 m (20).
R. ficarioides Bory & Chaub. – G bulb, Steno-Medit.-Mont.-Orient. -Melting snow, 1650 m (2).
R. gracilis Clarke – H scap, NE-Medit. -*Abies* forest clearings, 1000 m (12), (Strid no 29629, UPA!).
R. neapolitanus Ten. – H scap, NE-Medit. -By a stream, 600 m (23).
R. sprunerianus Boiss. – H scap, E-Medit. -*Quercus coccifera* macchie, 1100m., (1).
 **R. subhomophyllus* (Halácsy) Vierh. – H scap, Endem. -Meadows, 800 m (5).
R. trilobus Desf. – T scap, W-Medit.- Macarones. -Meadows and roadsides, 900 m (3).
R. velutinus Ten. – H scap, N-Medit. -*Platanus orientalis* forest, 800 m (7).

Resedaceae

- Reseda lutea* L. subsp. *lutea*: – H scap, Paleotemp. -Forest roadsides, 850 m (9).

Rhamnaceae

- Frangula rupestris* (Scop.) Schur – NP caesp, Balkan.-It. -Limestone rocks, 700 m (5).
Paliurus spina - christi Miller – P caesp, SE-Europ.-Pont. -Roadsides, 500 m (4).
Rhamnus saxatilis Jacq. subsp. *prunifolia* (Sm.) Alden – P caesp, Medit.-Mont.-N-Orient. -Limestone rocks, 2100 m (2).
 **R. sibthorpianus* Roemer & Schultes – NP caesp, Endem. -Limestone rocks, 1600 m (6); 1450 m (8).

Rosaceae

- Agrimonia eupatoria* L. – H scap, Subcosm. -By a rivulet, 1200 m (9).
Amygdalus webbii Spach – P caesp, E-Steno-Medit. -Fields and sparse scrub, 800 m (13).
Malosorbus florentina (Zuccagni) Browicz – P caesp, E-Steno-Medit. -*Abies* forest clearing, 1250 m (9).
Malus sylvestris Miller – P scap, Centroeuro.-Caucas. -Fields, 900 m (16).
Potentilla micrantha Ramond ex DC. – H scap, Euri-Medit. -*Abies* forest, 1200 m (12).
P. pedata Nestler – H scap, Orof.-SE-Europ. -By a rivulet, 1200 m (9).
Rubus sanctus Schreber **aggr.** – P caesp, Paleotemp. -Field borders, 600 m (14).
Sorbus aria (L.) Crantz subsp. *cretica* (Lindley) Holmboe – P caesp, Orof.-S-Europ.-SW-Asiat. -Limestone rocks, 1800 m (2).
Aremonia agrimonoides (L.) DC. subsp. *agrimonoides* – H ros, Orof.-NE-Medit. -*Abies* forest, 1100 m (12).
Cydonia oblonga Miller – P scap, SW-Asiat. -Roadsides, 500 m (21).
Geum urbanum L. – H scap, Circumbor. -*Platanus orientalis* community, 800 m (28).
Potentilla reptans L. – H ros, Paleotemp. -Meadow by the river, 570 m (5).
Prunus mahaleb L. – P scap, SE-Europ.-Mont. -Village Kertezi, roadsides, 800 m (9).
P. prostrata Labill. – NP caesp, Orof.-Paleosubtrop. -Dry subalpine meadows, 1500 m (6).
Pyrus spinosa Forsskål. – P caesp, Steno-Medit. -*Phlomis fruticosa* phrygana, 750 m (1).
Sanguisorba minor Scop. subsp. *muricata* (Spach) Briq. – H scap, Subcosm. -*Quercus coccifera* macchie, 750 m (8).
Sarcopoterium spinosum (L.) Spach – Ch frut, E-Medit. -Phrygana with *Genista acanthoclada*, 550 m (4).

Rubiaceae

Asperula aristata L. subsp. *longiflora* (Waldst. & Kit.) Hayek – Ch suffr, S-Europ. -

Genista acanthoclada phrygana, 550 m (4).

**A. lutea* Sibth. & Sm. – Ch suffr, Endem. -Limestone rocks, 1200 m (1).

Cruciata laevipes Opiz – H scap, Euroasiat. -Roadsides by a stream and macchie clearings, 800 m (8).

Galium aparine L. – T scap, Paleotemp. -*Platanus orientalis* forest, 550 m (15).

G. incanum Sibth. & Sm. subsp. *incanum* – Ch suffr, Orof.-NE-Medit. -Limestone rocks, 2000 m (2).

G. rotundifolium L. – H scap, Orof.-Euroasiat. -*Abies* forest, 1250 m (3).

G. verum L. – H scap, Euroasiat. -*Abies* forest clearings, 1200 m (9).

**G. violaceum* Krendl – H scap, Endem. -Limestone rocks, 550 m (21).

Putoria calabrica (L. fil.) DC. – Ch suffr, S-Medit. -Limestone rocks, 550 m (21).

Sherardia arvensis L. – T scap, Subcosm. -Meadows, 500-600 m (4).

Salicaceae

Salix eleagnos Scop. – P caesp, Orof.-S-Europ. -River Pinios near Kriovrissi, 1000 m (19).

Santalaceae

Osyris alba L. – P caesp, Euri-Medit. -*Genista acanthoclada* phrygana, 600 m (4).

Thesium arvense Horvatovszky – H scap, Europ.-Centroasiat. -Limestone rock crevices, 1450 m (8).

Saxifragaceae

Saxifraga tridactylites L. – T scap, Paleotemp. -Limestone rocks, 1100 m (16).

Scrophulariaceae

Digitalis laevigata Waldst. & Kit. subsp. *graeca* (Ivanina) Werner – H scap, Balkan -*Abies* forest, 1000 m (12).

Kickxia elatine (L.) Dumort subsp. *crinita* (Mabille) Greuter – T scap, Euri-Medit. -River banks, 600 m (5).

Linaria peloponnesiaca Boiss. & Heldr. – H scap, Balkan -Screes and dry subalpine meadows, 1900 m (2).

Scrophularia canina L. subsp. *bicolor* (Sm.) W. Greuter – Ch suffr, SE-Europ. -Roadsides, 800 m (1).

S. peregrina L. – T scap, Euri-Medit. -*Platanus orientalis* stands near houses, 550 m (15).

Verbascum blattaria L. – H bienn, Cosmopol. -Meadow, 650 m (21).

V. sinuatum L. – H scap, Euri-Medit. -Roadsides, 600 m (5).

Veronica anagallis-aquatica L. – H scap, Cosmopol. -Stream, 650 m (1).

V. beccabunga L. – H scap, Euroasiat. -Stream, 1750 m (2).

V. cymbalaria Bodard – T rept, Euri-Medit. -Shady places, on limestone rocks, 900 m (8).

**V. glauca* Sm. subsp. *chaubardii* (Boiss. & Reuter) Maire & Petitmegin – T scap, Endem. -Meadow, 700 m (20).

V. jacquinii Baumg. – H scap, SE-Europ. -Sparse and low scrub with *Quercus coccifera*, 1000 m (8) ; dry subalpine meadows, 1900 m obs. (2).

V. persica Poiret – T rept, Paleotemp. -Meadow, 950 m (18).

Solanaceae

Atropa belladonna L. – H scap, Medit.-Mont. -*Abies* forest, by the forest road, 1200 m (11).

Hyoscyamus albus L. – T scap / H bienn, Euri-Medit. -Village Ano Chrissopigi, roadsides, 700 m (13).

Solanum nigrum L. – T scap, Cosmopol. -Village Ano Chrissopigi, roadsides, 700 m (13).

Tiliaceae

Tilia cordata Miller – P scap, Europ.-Caucas. -Limestone rocks, 1300 m (3).

Ulmaceae

Ulmus procera Salisb. – P scap, Europ. -Small *Ulmus* community in damp ground, 620 m (23).

Urticaceae

Parietaria judaica L. – H scap, Euri-Medit.-Atl. -*Platanus orientalis* forest, 680 m (27).

Valerianaceae

Centranthus ruber (L.) DC.: subsp. *sibthorpii* (Heldr. & Sart. ex Boiss.) Hayek – Ch suffr, Euri-Medit. -Limestone rocks, 800-1200 m (8).

Valerianella echinata (L.) DC. – T scap, Euri-Medit. -Open rocky places, 1000 m (16).

Verbenaceae

Verbena officinalis L. – H scap, Paleotemp. -Old fields, 600 m (5).

Vitex agnus-castus L. – P caesp, Euri-Medit. -Roadsides by a stream, 500 m (4).

MONOCOTYLEDONES

Amaryllidaceae

Narcissus poeticus L. – G bulb, Orof.-S-Europ. -Rock bases, 1750 m (2).

Sternbergia sicula Tineo ex Guss. – G bulb, E-Medit. -Rocky habitats, 1300 m (3).

Araceae

Arisarum vulgare Targ. - Tozz. subsp. *vulgare* – G rhiz, Euri-Medit. -Fields, 500 m (4).

Arum italicum Miller – G bulb, Steno-Medit. -*Platanus orientalis* forest, 800 m (16).

A. maculatum L. – G rhiz, Centroeurop. -Rocky places, 1500 m (3).

**Biarum spruneri* Boiss. – G rhiz, Endem. -*Phlomis fruticosa* phrygana, 1100 m (17).

Cyperaceae

Carex flacca Schreber subsp. *serrulata* (Biv.) Greuter – G rhiz, Euri-Medit. -*Quercus coccifera* low scrub, 600 m (4).

C. otrubae Podp. – H caesp, Euri-Medit.-Atl. -Stream, 1300 m (25).

C. pendula Hudson – H caesp, Euroasiat. -*Platanus orientalis* forest, 800 m (7).

Cyperus longus L. – G rhiz, Paleotemp. -Stream, 800 m (1).

Scirpoides holoschoenus (L.) Sojak – G rhiz, Medit.-Atl. -Stream, 800 m (1).

Gramineae

Agrostis stolonifera L. – H rept, Circumbor. -Fields and roadsides, 700 m (14).

Aira elegantissima Schur – T caesp, Euri-Medit. -Rocky places with sparse low scrub, 900 m (14).

Alopecurus gerardii Vill. – H caesp, Medit.-Mont. -Subalpine meadows, 1800-2000 m (2).

Anthoxanthum odoratum L. – H caesp, Paleotemp. -Dry subalpine meadows, 1600-1700 m (2).

Arrhenatherum elatius (L.) J. & C. Presl – H caesp, Paleotemp. -*Abies* forest, 1450 m (3).

Avena barbata Pott ex Link – T caesp, Euri-Medit.-Turan. - Old fields, 500 m (4).

**Avenula agropyroides* (Boiss.) Holub – H caesp, Endem. -Sparse *Abies* forest, 1350 m (19).

- Brachypodium retusum* (Pers.) Beauv. – H caesp, Steno-Medit. -*Quercus coccifera* low scrub and macchie, 500-1200 m (8).
- B. rupestre* (Host) Roem. & Schult. – H caesp, Subatlant. -*Juniperus foetidissima* communities, 1600 m (26).
- B. sylvaticum* (Hudson) P. Beauv. subsp. *sylvaticum* – H caesp, Paleotemp. -*Platanus* forest, 800 m (7).
- Briza humilis* M.B. – T caesp, E-Medit.-An. -Limestone rocks, 800 m (5).
- B. maxima* L. – T caesp, Paleosubtrop. -Fields, 550 m (4).
- Bromus cappadocicus* Boiss. & Bal. subsp. *lacmonicus* (Hauskn.) P. M. Smith – H caesp, Balkan -Dry subalpine meadows, 1900 m (2).
- B. intermedius* Guss. – T caesp, Euri-Medit. -*Phlomis fruticosa* phrygana, 800 m (25).
- B. madritensis* L. – T caesp, Euri-Medit. -Open places, 700-800 m (5).
- B. sterilis* L. – T caesp, Euri-Medit.-Turan. -*Phlomis fruticosa* phrygana, 800-1100 m (8).
- B. tectorum* L. – T caesp, Paleotemp. -*Juniperus foetidissima* open stands, 1650 m (9).
- Catapodium rigidum* (L.) C. A. Hubb. – T caesp, Euri-Medit. -*Quercus coccifera* macchie, 700 m (4).
- Cynodon dactylon* (L.) Pers. – G rhiz, Cosmopol. -Fields, 500 m (4).
- Cynosurus echinatus* L. – T caesp, Euri-Medit. -*Abies* forest, 1200 m (19).
- Elytrigia intermedia* (Host.) Novski subsp. *intermedia* – G rhiz, Euroasiat. -*Quercus coccifera* macchie, 1100 m (1).
- E. intermedia* (Host.) Novski subsp. *pulcherrima* (Grossh.) Teret. – G rhiz, Europ.-SW-Asiat. -*Quercus coccifera* forest, 900 m (1).
- Festuca arundinacea* Schreber – H caesp, Paleotemp. -Stream banks, 650 m (14).
- **F. jeanpertii* (St-Yves) Markgraf subsp. *achaica* (Markgr.-Dannenb.) Markgr.-Dannenb. – H caesp, Endem. -Limestone rock crevices, 1400 m (8).
- **F. polita* (Halácsy) Tzvelev – H caesp, Endem. -*Festuca cyllenica* communities, 1800 m (2).
- F. spectabilis* Jan subsp. *affinis* (Boiss. & Heldr. ex Hackel) Hackel – H caesp, Balkan-It. -Screes, 1700-2050 m (2).
- Gaudiniopsis macra* (Bieb.) Eig. – T caesp, Iran.-Turan. -*Phlomis fruticosa* phrygana, 1300 m (25).
- Holcus lanatus* L. – H caesp, Circumbor. -Stream, 600 m (14).
- Hordeum bulbosum* L. – H caesp, Paleosubtrop. -*Phlomis fruticosa* phrygana and abandoned fields, 900 m (1).
- H. murinum* L. subsp. *leporinum* (Link) Arc. – T caesp, Euri-Medit. -Fields and roadsides, 500-600 m (4).
- Hyparrhenia hirta* (L.) Stapf – H caesp, Paleotemp. -Phrygana in rocky places, 530 m (21).
- Lolium perenne* L. – H caesp, Circumbor. -Open places, 1150 m (1).
- Melica uniflora* Retz – H caesp, Paleotemp. -*Abies* forest, 800 m (14).
- Milium vernale* MB. – T caesp, Medit.-Mont. -*Festuca* communities, 1300 m (8).
- Piptatherum coerulescens* (Desf.) P. Beauv. – H caesp, Steno-Medit. -Limestone rocks, 550 m (21).
- P. miliaceum* (L.) Cosson subsp. *miliaceum* – H caesp, Euri-Medit.-Turan. -Fields and roadsides, 500 m (4).
- P. miliaceum* (L.) Cosson subsp. *thomasi* (Duby) Freitag – H caesp, S-Europ. -*Abies* forest, 1350 m (25).

- Poa annua* L. – T caesp, Cosmopol. -Wet places, 700 m (5).
P. nemoralis L. – H caesp, Circumbor. -*Festuca cyllenica* community, 1400 m (8).
P. timoleontis Heldr. ex Boiss. – H caesp, E-Medit. -Open places, 1400 m (1) ; 1300 m (8).
P. trivialis L. subsp. *sylvicola* (Guss.) H. Lindb. f. – H caesp, Euroasiat. -Wet places, 1200 m (19).
Polypogon viridis (Gouan) Breistr. – H caesp, Paleosubtrop. -Stream banks, 1500 m (19).
Stipa bromoides (L.) Dörfler – H caesp, Euri-Medit. -Forests, 600-1200 m (8).
S. holosericea Trin. – H caesp, E-Medit.-Turan. -*Juniperus foetidissima* community, 1700 m (9).
Trisetum tenuiforme Jonsell – H caesp, Balkan -*Astragalus creticus* communities, 1800 m (2).
Vulpia muralis (Kunth) Nees –T caesp, W-Steno-Medit. -Roadsides, 900 m (5).

Iridaceae

- Crocus cancellatus* Herbert subsp. *mazziaricus* (Herbert) B.Matthew – G bulb, Balkan-An. -Meadows, 1450 m (6).
C. olivieri Gay subsp. *olivieri* – G bulb, Balkan-An. -Sparse *Quercus coccifera* low scrub, 900 m (8).
Hermodactylus tuberosus (L.) Miller – G rhiz, Steno-Medit. -*Quercus coccifera* macchie clearings, 600 m (4).
Iris germanica L. – G rhiz, Euroasiat. -Limestone rock crevices, 1400 m (8).
Romulea bulbocodium (L.) Seb. & Mauri – G bulb, Steno-Medit. -Sparse phrygana, 500 m (20).
R. columnae Seb. & Mauri subsp. *columnae* – G bulb, Steno-Medit. -Sparse phrygana, 500 m (20).
R. linariesii Parl. subsp. *graeca* Beg. – G bulb, NE-Medit. -Macchie clearings, 520 m (20).

Juncaceae

- Juncus articulatus* L. – G rhiz, Circumbor. -Wet meadow, 1800 m (2).
J. inflexus L. – H caesp, Paleotemp. -Wet places, 1400 m (3).
Luzula forsteri (Sm.) DC. – H caesp, Euri-Medit. -*Abies* forest, 850 m (27).
L. nodulosa (Bory & Chaub.) E.H.F. Meyer – H caesp, Steno-Medit. -*Abies* forest, 800 m (14).
L. spicata (L.) DC. subsp. *pindica* (Hauskn.) Gamisans – H caesp, Orof.-SE-Europ. – Meadow with *Alopecurus gerardii*, 2000 m (2).

Liliaceae

- Allium amethystinum* Tausch – G bulb, E-Steno-Medit. -Roadsides, 850 m (14).
 **A. callimischon* Link subsp. *callimischon* – G bulb, Endem. -*Quercus frainetto* forest, 800 m (7).
A. flavum L. subsp. *tauricum* (Besser ex Reichenb.) Stearn – G bulb, E-Steno-Medit. -*Phlomis fruticosa* phrygana, 700 m (25).
A. guttatum Steven subsp. *sardoum* (Moris) Stearn – G bulb, Steno-Medit. -Limestone rocks, 1300 m (13).
A. paniculatum L. subsp. *paniculatum* – G bulb, Euri-Medit. -Limestone rock crevices, 550 m (21).
Asparagus acutifolius L. – Ch frut, Steno-Medit. -*Quercus coccifera* macchie, 570 m (4).
Asphodeline lutea (L.) Reichenb. – G rhiz, Euri-Medit. -Dry subalpine meadows, 1700 m (17).

- Bellevallia dubia* (Guss.) Roemer & Schultes – G bulb, Steno-Medit. -*Quercus coccifera* low scrub, 800 m (8).
- Colchicum pusillum* Sieber – G bulb, E-Medit. -*Quercus coccifera* low scrub clearings, 600 m (15).
- C. triphyllum* G. Kuntze – G bulb, Euri-Medit. -Meadows and sparse *Quercus coccifera* low scrub, 1200-1300 m (8).
- Gagea arvensis* (Pers) Dumort – G bulb, Euroasiat.-temper. -Meadows, 700 m (20).
- G. graeca* (L.) Terracc. – G bulb, E-Medit. -Rocky places, 1000 m (13).
- G. granatelli* (Parl.) Parl. – G bulb, N-Medit.-Pont. -Meadow, 1500 m (24).
- G. pusilla* (Schmidt) Schultes – G bulb, SE-Europ. S-Siber. -Meadow, 700 m (20).
- Ornithogalum collinum* Guss. – G bulb, Euri-Medit. -Conglomerate rocks, 550 m (4).
- O. exscapum* Ten. – G bulb, S-Europ. -Meadows, 1600-1900 m (3).
- O. montanum* Cyr. – G bulb, NE-Medit.-Mont.- Open rocky places, 900 m (8).
- O. nutans* L. – G bulb, E-Steno-Medit. -Field edges, 1000 m (14).
- O. oligophyllum* Clarke – G bulb, E-Medit. -Mountain path and dry subalpine meadow, 1500-1700 m (3).
- **O. prasinantherum* Zahar – G bulb, Endem. -Fields, 1000 m (14) ; 900 m (1).
- Scilla autumnalis* L. – G bulb, Euri-Medit. -*Phlomis fruticosa* phrygana, 1200 m (17).
- Smilax aspera* L. – P lian, Paleosubtrop. -*Quercus coccifera* macchie, 500 m (4).
- Urginea maritima* (L.) Baker – G bulb, Euri-Medit.-Macarones. -*Phlomis fruticosa* phrygana, 800 m (1).

Orchidaceae

- Anacamptis pyramidalis* (L.) L. C. M. Richard – G bulb, Euri-Medit. -Sparse scrubs, 550 m (21).
- Cephalanthera damasonium* (Miller) Druce – G rhiz, Euri-Medit. -*Abies* forest, 800 m (14).
- C. rubra* (L.) L. C. M. Richard – G rhiz, Euroasiat. -*Castanea sativa* forest, 820 m (9).
- Epipactis helleborine* (L.) Crantz – G rhiz, Paleotemp. -*Abies* forest clearings, 1200 m (9).
- E. microphylla* (Ehrhart) Schwartz – G rhiz, Europ.-Caucas. -*Abies* forest, 1100 m (1).
- Limodorum abortivum* (L.) Swartz – G rhiz, Euri-Medit. -*Castanea sativa* forest, 850 m (9).
- Ophrys lutea* Cavanilles – G bulb, Medit. -Atl.-*Quercus coccifera* macchie, 600 m (4).
- Orchis laxiflora* Lam. – G bulb, Euri-Medit. -Damp meadow, 600 m (23).
- O. provincialis* Balb. – G bulb, Steno-Medit. -*Abies* forest, 850 m (27).
- O. quadripunctata* Cyr. – G bulb, Steno-Medit. *Quercus coccifera* low scrub, 1100 m (18).

Results

The plant list presented in this paper consists of 473 new floristic reports from Mt. Erimanthos. 31 of these taxa are Greek endemics (marked by an asterisk in the list) and 17 are Balkan endemics. Taking into account their chorology and their status in nature, the following remarks can be made:

- Among the Greek endemics, *Dianthus androsaceus*, *Galium violaceum*, *Peucedanum achaicum*, *Seseli aroanicum* and *Taraxacum cylleneum* are restricted to Peloponnisos. *Dianthus androsaceus*, first collected on Mt. Killini but now presumably extinct from there, is also known from Mts. Panachaikon and Taigetos. *Peucedanum achaicum* was

- reported only from the Vouraikos ravine (N Peloponnisos), while *Seseli aroanicum* and *Taraxacum cylleneum* were known to occur on Mts. Chelmos and Killini respectively.
- The finding on Mt. Erimanthos of the Greek endemic *Dianthus serratifolius* subsp. *Serratifolius*, far from the mountains of Attiki (Strid & Tan 1997), confirms Sfikas's (1997) report for this taxon from Peloponnisos (Mt. Panachaikon).
 - *Asplenium septentrionale*, *Corylus colurna*, *Narcissus poeticus*, *Taraxacum scaturiginosum*, *T. cf. epirensis*, *T. cf. parnassicum*, *Vicia tenuifolia* subsp. *tenuifolia* and the Greek endemic *Taraxacum gionense* are reported for the first time to occur in Peloponnisos. *Taraxacum capricum* is also a first-time record for Peloponnisos as it has been collected so far only from Mt. Olimbos and Kerkira island (Richards pers. comm.).
 - The following taxa present restricted distribution in Peloponnisos: *Anthyllis vulneraria* subsp. *bulgarica* is also known from Mt. Killini, *Silene latifolia* from Mt Menalon, *Taraxacum gracilens* from Mt. Chelmos, *Ulmus procera* from Mt. Panachaikon and *Veronica jaquinii* from Messini area (S Peloponnisos).
 - The finding on Erimanthos of the Irano-Turanian element *Gaudiniopsis macra* and the East-Mediterranean element *Lonicera nummulariifolia* subsp. *nummulariifolia*, is quite interesting. Both these taxa have disjunctive distribution ranges and are known only from a few localities in Greece.
 - 6 taxa are included in the IUCN Red list of threatened Plants (1997), highlighted as Rare; they are: *Scutellaria rupestris* (represented on Erimanthos by the the Greek endemic subsp. *parnassica*), *Malosorbus florentina* (known from six localities in Greece) and the Greek endemics *Biarum spruneri*, *Peucedanum achaicum*, *Ranunculus subhomophyllus* and *Seseli aroanicum*. Furthermore, *Malosorbus florentina*, *Peucedanum achaicum* and *Dianthus androsaceus* (a Greek endemic too) are included in the Red Data Book of rare and threatened plants of Greece (Phitos & al. 1995), the first two reported as Vulnerable and the third as Rare.

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