

**ADAM BORATYŃSKI, KAZIMIERZ BROWICZ,
JERZY ZIELIŃSKI**

Woody flora of Euboea (Evvoia)*

Abstract

Boratyński A., Browicz K., Zieliński J. 1988. Woody flora of Euboea (Evvoia). Arbor. Kórnickie 33: 13—74.

From August 21st to September 13th of 1986 the authors conducted dendrological studies on Euboea island. As a result of detailed penetration of the island they have found 30 new taxa for its woody flora, one of which, *Periploca graeca* var. *vestita*, is at the same time a new taxon for the flora of Greece as a whole. Basing on own investigations, herbarium collections and data from the literature a full list of species of trees and shrubs growing wild or those which have gone wild on the island was prepared. For each species the authors cite their own herbarium specimens and field observations. On the basis of all the data point maps of distribution on the island were prepared for 154 species.

Additional key words: chorology, trees, shrubs, Greece

Address: A. Boratyński, K. Browicz, J. Zieliński, Institute of Dendrology, 62-035 Kórnik, Poland
 * This study was performed within program CPBP 04.04 with financial assistance from the Goulandris Natural History Museum, Kifissia, Greece.

INTRODUCTION

Euboea, the second in size after Crete island of Greece, extends along the northeastern shores of Attica from which it is separated by the Northern and Southern Euboea Bays (Evvoikos Kolpos), which is narrowest near the central part of the island. Here the island is connected with the continent by a permanent bridge leading directly into Chalkis town. The area of the island is about 3700 km², its greatest lenght is 175 km and the width varies from 7 to 50 km. Most northerly is Cape Artemision at c. 39°02' Lat. N and most southerly Cape Mandili at c. 37°57' Lat. N. The island is montane in character, particularly in the central and southern part. The highest peak is Dirphys — 1743 m, the latter name being used both for the peak itself (Fig. 1) and for the whole range, thus data given in the literature and on herbarium specimens frequently does not permit

* This study was performed within program CPBP 04.04 with financial assistance from the Goulandris Natural History Museum, Kifissia, Greece.

a detailed localisation of the stand. Other peaks higher than 1300 m are Xirovuni — 1417 m, Ochi — 1398 m, Skotini — 1362 m and Pyxaria — 1343 m. Besides there are also 9 other peaks above 1000 m. In the northern part of the island the tallest mountains are Xiron — 991 m and Telethrion — 970 m. The coast, particularly on the eastern side of the island, is in many places rocky, strongly cut and frequently quite inaccessible. In terms of geological structure Euboea is very differentiated (Rechinger 1961), however limestone rocks dominate. Of special note are also serpentine rocks on which a specific flora can be found with taxons endemic for the island.

The first listing of species and their stands on Euboea has been done by Rechinger in 1943 based on herbarium materials and literature data collected by various botanists on the island. The flora of Euboea at that time included 950 species. Almost twenty years later Rechinger (1961) described the flora again incorporating latest materials, particularly those collected by Phitos in 1960. These he published at the end of the paper in the form of a supplement (Nachtrag). At that time Rechinger judged that the total vascular flora of Euboea includes about 1400 species, which places it in second place after Crete among all Greek islands. However, taking into consideration our own observations and our herbarium collections one can suspect that after a more detailed floristic analysis of the island this number will increase further.

Since 1961 the „Die Flora von Euboea” of Rechinger became the basic source of information on the vascular plants of the island. Rechinger himself was on the island 5 times, in 1932 for 7 days, in 1955 for 7 days, in 1958 for 14 days, in 1966 for 12 days and in 1969 for 21 days. In later years two further floristic studies of Euboea appeared. One by Skroumbis and Pinatzis (1963) was devoted to aromatic and medicinal plants. The other is a monograph of orchids on Euboea published by Künkele and Paysan (1981), in which there are point maps (by the method of squares) of the distribution of all species from this group of plants. Also there are some informations on stands of some plants in the work of Goulandris and Goulimis (1968) and in the „Mountain Flora of Greece” by Strid (1986).

The flora of Euboea is very diversified, which is the result of there being so very high mountains there, of the rich coastal line, of the diversity of rocky substrata, of the extensive north-south geography of the island and also in the relatively small damage to the flora inflicted by man. However, particularly in recent times in some parts of the island an extensive exploitation of mineral resources is being conducted as for example near Karavos or near Trupion. It appears that the island is not visited much by tourists so that their frequently destructive influence is not so very much visible. Quite well developed forests, particularly coniferous ones continue to exist here. At lower elevations these are more or less open pinewoods (*Pinus halepensis*) and in the upper and central parts of the island, particularly in the Kandilion range and Dirphys range, fir forests (*Abies cephalonica*). Occasionally black pine appears (*Pinus nigra* subsp. *pallasiana*) in places forming even pure stands (eg. near Kerasea in the north) and

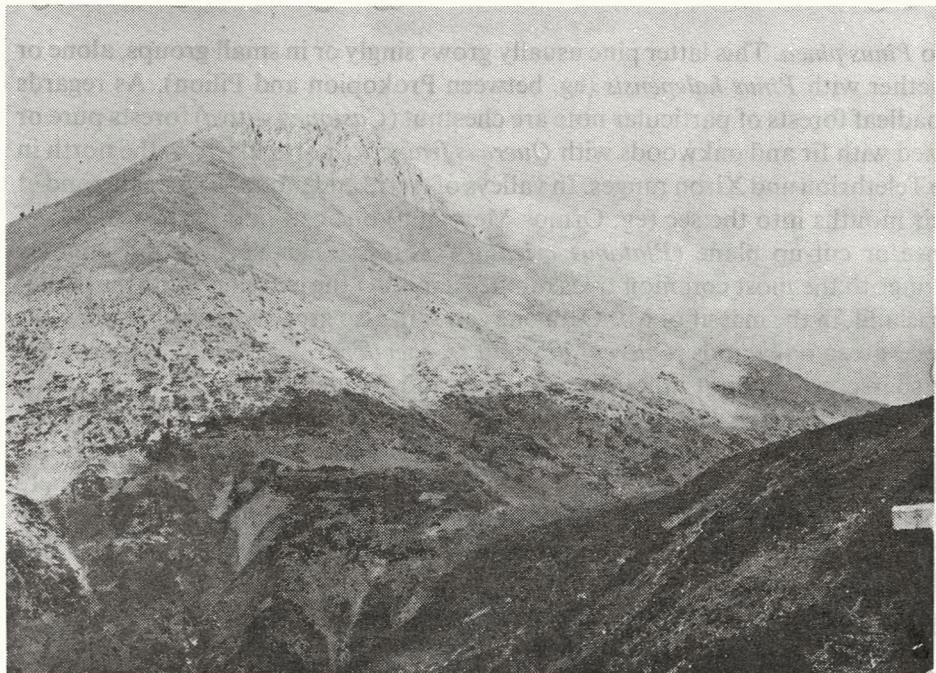


Fig. 1. The top of Dirphys Mt. (Phot. A. Boratyński)

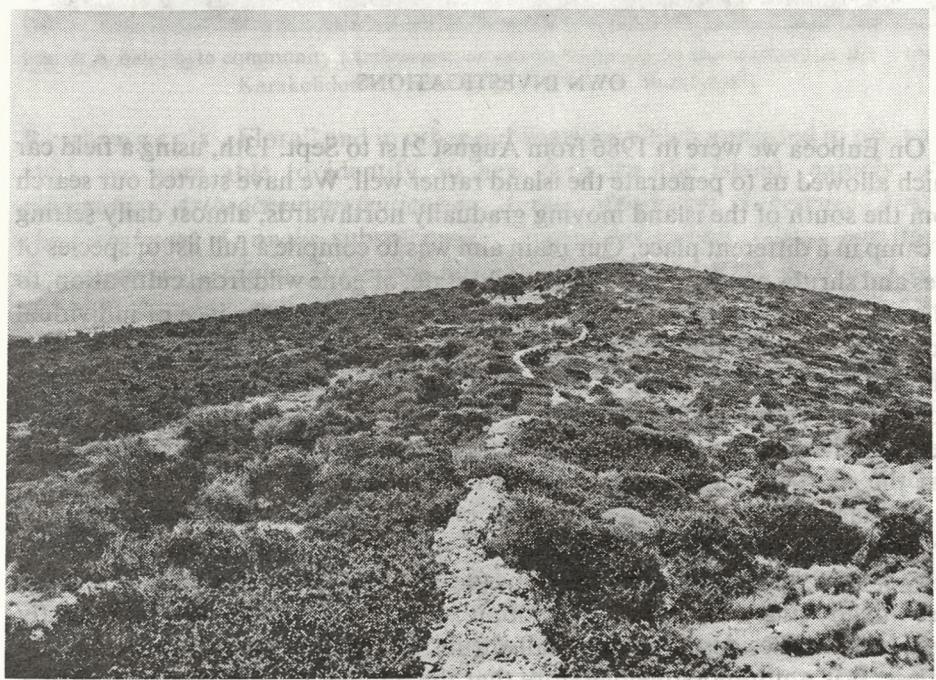


Fig. 2. Degraded maquis and phrygana communities on the hill S of Zarakes (Phot. A. Boratyński)

ru benistiono esteb adi ditztisotis oti grifis oti compisio oti coidadepas oti As a foordadepas oti raxvitis excisor, Purnana pizarrit, Genista lydia, Juniperus excisor, Cistus laurifolius, Micromeria myrtifolia, M. nervosa, Podocarpus canariensis, Prunus

also *Pinus pinea*. This latter pine usually grows singly or in small groups, alone or together with *Pinus halepensis* (eg. between Prokopion and Pilion). As regards broadleaf forests of particular note are chestnut (*Castanea sativa*) forests pure or mixed with fir and oakwoods with *Quercus frainetto*, particularly in the north in the Telethrion and Xiron ranges. In valleys of rivers and mountain streams and at their mouths into the sea (eg. Ormos Metochiu) one can find narrow bands of dense or cut-up plane (*Platanus orientalis*) forests. This species undoubtedly belongs to the most common trees on the island. At the extreme southern end of the island, in the massif of Mt. Ochi one can find also greater or smaller portions of evergreen oakwoods (*Quercus ilex* and *Q. coccifera*), as a rule, however, these are sparse, usually not taller than 5—6 m, and frequently accompanied by the tree form *Phillyrea latifolia*. Everywhere, in open and isolated places there develop communities of the phrygana (Fig. 2) and more or less degraded maquis, while in the upper reaches of the mountains (particularly on Dirphys) there appear plant communities of distinctly alpine nature. Besides on the sea shore itself and around small water eyelets near the sea (particularly in the north) halophyte communities developed (Fig. 3). The plant communities of Euboea, in contrast to its flora, have not been studied yet and only Krause, Ludwig, and Seidel (1963) have dealt with them in detail for the vicinity of Mandilion (in the northern part of the island) compiling a set of phytosociological lists and describing several associations.

OWN INVESTIGATIONS

On Euboea we were in 1986 from August 21st to Sept. 13th, using a field car which allowed us to penetrate the island rather well. We have started our search from the south of the island moving gradually northwards, almost daily setting up camp in a different place. Our main aim was to compile a full list of species of trees and shrubs occurring here in the wild state, or gone wild from cultivation, to collect herbarium materials and to collect data on the occurrence of individual taxa and consequently to prepare point maps of their distribution. For comparative purposes we have used primarily the study of Rechinger „Die Flora von Euboea” (1961). However, our search was restricted to the island itself, while Rechinger mentions in his study also the flora of small islands located near the southern and northern tips of the island.

The later summer time of our visit created certain specific difficulties in performing this type of inventarization of the woody flora of the island, since many species, particularly small shrubs (eg. *Fumana* ssp. and *Micromeria* ssp.), were already much dried and therefore it was not always possible to correctly identify them. Besides, even such tall shrubs as *Anagyris foetida*, were already leafless. It is not impossible therefore that the number of stands of such shrubs species is on the island higher than we were able to ascertain.

As a consequence of comparing our collections with the data contained in



Fig. 3. A halophyte community (*Arthrocnemum macrostachyum*) on the seashore at the S foot of Karakolidos Mt. near Edipsos (Phot. A. Boratyński)

Rechinger's „Flora” and in other publications which appeared in print after 1961, we were able to identify 30 new taxa for the island, namely: *Acer platanoides*, *Arthrocnemum fruticosum*, *A. macrostachyum*, *A. perenne*, *Amelanchier chelmea*, *A. ovalis* subsp. *ovalis*, *Amygdalus webbii*, *Cistus parviflorus*, *Elaeagnus angustifolia*, *Halimione portulacoides*, *Lavatera bryonifolia*, *Lycium chinense*, *L. europaeum*, *Nicotiana glauca*, *Periploca graeca* var. *graeca*, *P. graeca* var. *vestita*, *Prunus spinosa* subsp. *dasyphylla*, *Quercus macrolepis*, *Q. petraea* subsp. *petraea*, *Q. petraea* subsp. *iberica*, *Rhamnus oleoides*, *Rosa arvensis*, *Rubus hirtus*, *Salix amplexicaulis*, *Salvia pomifera*, *Sambucus nigra*, *Scabiosa hymettia*, *Satureja parnassica*, *Thymbra spicata* and *Ulmus glabra*.

One of these, *Periploca graeca* var. *vestita*, is also new for the flora of Greece as a whole. Also we have found on Euboea three further species of trees and shrubs as regards which Rechinger had doubts, namely: *Carpinus orientalis*, which in the vicinity of Monokarya forms even small thickets along a stream, *Euphorbia dendroides*, which in a few coastal stands near Buphalon occurs even abundantly, and *Rosa gallica* in one stand near Papades. However, certain species quoted by Rechinger we were unable to find, such as: *Adenocarpus complicatus*, *Amelanchier ovalis* subsp. *cretica*, *Chamaecytisus supinus*, *Clematis viticella*, *Convolvulus oleifolius*, *Daphne jasminea*, *Ephedra major* subsp. *procera*, *Fraxinus excelsior*, *Fumana pinatzzii*, *Genista lydia*, *Juniperus excelsa*, *Ligustrum vulgare*, *Micromeria myrtifolia*, *M. nervosa*, *Podocytisus caramanicus*, *Ptilos-*

temon gnaphaloides, *Quercus cerris*, *Q. virginiana*, *Salix fragilis*, *Ulmus laevis* and *Withania somnifera*. At least some of these appear to have been reported on the basis of erroneous information.

Altogether, the woody flora of Euboea, together with the species we have not found and those gone wild, has presently 179 species, two of which are endemites, *Quercus euboica* and *Daphne euboica*, the systematic position of which is not sufficiently clear yet.

Below we give the full list of species in alphabetical order within families and genera. Alongside each species we quote only our own herbarium collections (the abbreviation ABBZ and appropriate number) and stands observed by us during field investigations.* These are given numbers corresponding to the numbers of the list of stands, mentioned also on a special map (Fig. 4). In the case of species we have not discovered we quote the data mentioned by Rechinger (1961) or in other studies. Each species, except those not found and those gone wild, is presented in the form of a point map of distribution on the island, for the construction of which we have used all the data available to us. For reasons mentioned above we have decided not to prepare distribution maps for species from genera *Fumana* and *Micromeria*. They would not represent the true distribution of these species on the island. The full set of herbarium specimens collected by us (359 numbers) is stored in the herbarium of the Institute of Dendrology of the Polish Academy of Sciences in Kórnik (KOR) and in the herbarium of the Goulandris Natural History Museum in Kifissia near Athens (ATH).

LIST OF LOCALITIES NUMBERS OF WHICH ARE CITED IN FIELD OBSERVATIONS

- 1 — The Cape Lichada; 2 — Between the Cape Lichada and Agios Georgios; 3 — Lichas, by the road to the top of Lichas Mt.; 4 — Along the road from Agios Georgios to Gialtra; 5 — The foot of Karakolidos Mt. at Aedipsos Bay; 6 — Between Agiokambos and the Cape Agios Sostis; 7 — Between Agiokambos and Agios; 8 — Between Aedipsos and Agios; 9 — Between Ilia and Lutra Aedipsu; 10 — Between Istiae and Kanatadika; 11 — Between Istiae and Asiminion; 12 — Near Artemision; 13 — Between Istiae and Kastaniotissa; 14 — Between the crossroad Istiae — Vutas and Monokarya; 15 — Between Artemision and Gerakiu; 16 — Between Monokarya and Mileae; 17 — The slopes of Telethrion Mt.; 18 — NW of Roviae to Ilia; 19 — Between Pappades and Kostikia Paralia; 20 — Between Kerasea and Pappades; 21 — Between Amelandae and Straphi; 22 — From Amelandae towards Xiron Mt.; 23 — Between Agia Anna and Amelandae; 24 — Near Kerasea towards Pappades; 25 — Between Damia and Drymona; 26 — Near Straphi; 27 — Kurkuli, along the road to Xiron Mt.; 28 — Between Daphni and Kurkuli; 29 — Between Agia Anna and Strophylia; 30 — Between Agia Anna and Paralia Agia Anna; 31 — Between Limni and Roviae; 32 — Between Myrtias and Limni; 33 — Between Kirindos and Kechriae; 34 — Near Krya Vrysi; 35 — Between Krya Vrysi and Kirindos; 36 — Between Kirindos and Mandulion; 37 — Between Mandulion and Paralia Mandulion; 38 — Between Limni and Moni Galataki; 39 — Between Metochion and Kirindos; 40 — Between Kalvya and Metochion; 41 — Between Prokopion and Trupion; 42

* The geographic names have been based on the map „Athen-Delphi-Euboea” published in Vienna by Freytag-Berndt.

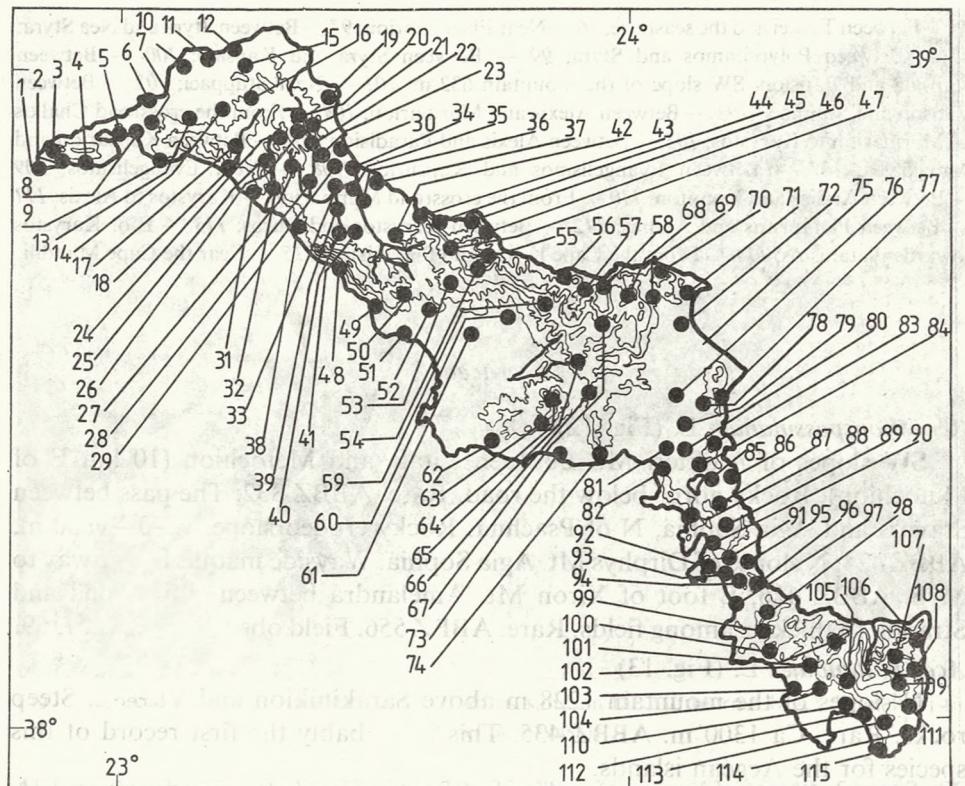


Fig. 4. Localities of field observations

— Between Pilion and Prokopion; 43 — From Vlachia towards Pilion; 44 — Near Vlachia; 45 — Near Sarakinion; 46 — Near Pygadia; 47 — Slopes of the mountain 1228 m, near Vlachia, between 700 and 1200 m; 48 — W slopes of Kandilion Mt. above Trupion; 49 — Between Politika and Daphni; 50 — Between Nea Pagondas and Akrae; 51 — Between Psachna and Politika; 52 — Between the crossroad Psachna — Prokopion and Stavros; 53 — Between Stavros and the pass 950 m; 54 — Between the pass 950 m and Agia Sophia; 55 — Between Agia Sophia and Myli; 56 — Metochiu Bay N of Lamari, seashore rocks; 57 — Between Stropones and Lamari; 58 — Between Metochion and Stropones; 59 — Between Stropones and Steni Dirphys; 60 — Between Krya Steni and Katheni; 61 — Between Katheni and Nea Artaki; 62 — Louli Beach W of Malakonda; 63 — S slopes of Olympos Mt. above Gymnon, 300 m; 64 — Ibidem, 600—900 m; 65 — E slopes of Zygos Mt. near the village Seta; 66 — Between Sterna and Seta; 67 — N slopes of Skotini Mt. 600—1100 m; 68 — Between Metochion and Paralia Metochion; 69 — From Vitala towards Metochion; 70 — Near Moni Sotira; 71 — Between Paralia Kymis and Moni Sotira; 72 — Between Kymi and Vitala; 73 — Between Eretria and Amaryndos; 74 — Between Amaryndos and Aliverion; 75 — Near Kymi; 76 — Between Neochorion and Orion; 77 — Near Achladeri; 78 — Between Neochorion and Achladeri; 79 — Between Lepura and Neochorion; 80 — Between Velos and Krieza; 81 — Between Aliverion and Velos; 82 — Between Aliverion and Prasinon (S of Velos); 83 — Between Krieza and Agios Apostoli; 84 — Between Krieza and Lake Dystos; 85 — Between Krieza and Koskina; 86 — Between Koskina and the seashore (E of Koskina); 87 — Near the crossroad Zarakes — Koskina; 88 — Dry slopes above the village Agios Dimitros SW of Zarakes; 89 — Between Zarakes and Almyropotamos; 90 — Between Almyropotamos and Panagia; 91 — Between Almyropotamos and Raptei (near Mesochoria); 92 — Near Argyron; 93 — Between Mesochoria and Polypotamos; 94 — Near Tsakei;

95—Between Tsakei and the seashore; 96—Near Elaeochorion; 97—Between Styra and Nea Styra; 98—Between Polypotamos and Styra; 99—Between Styra and Kapsala; 100—Between Kapsala and Vatision, SW slope of the mountain 632 m; 101—Near Stuppaei; 102—Between Vatision and Stuppaei; 103—Between Alexis and Marmarion; 104—From the crossroad Chalkis—Marmarion to Karystos; 105—Between Alexis and Paradision; 106—Between Kapsurion and Amygdalea; 107—Between Evangelismos and Kapsurion; 108—Near Evangelismos; 109—Between Andias and Komiton; 110—From the crossroad Marmarion—Karystos to Alexis; 111—Between Platanistos and Andias; 112—Between Karystos and Buros; 113—E of Karystos towards Platanistos; 114—From the Cape Kastri and Platanistos; 115—Near the Cape Mandili.

Aceraceae

Acer monspessulanum L. (Fig. 12)

SW slopes of Alokteri Mt. Between Vitala and Metochion (10 km E of Metochion). Rocky gorge below the road. Rare. ABBZ 332; The pass between Stavros and Agia Sophia, N of Psachna. Rocky eroded slope. 1000—1050 m, ABBZ 424; N slopes of Dirphys Mt. Agia Sophia. Wayside maquis by the way to Myli. ABBZ 426; E foot of Xiron Mt. Amelandra between Agia Anna and Straphi. In thickets among fields. Rare. ABBZ 556. Field obs.: 48, 54, 57, 67, 69.

Acer platanoides L. (Fig. 13)

N slopes of the mountain 1228 m above Sarakinikion and Vlachia. Steep rocks. Rare. Ca 1300 m. ABBZ 435. This is probably the first record of this species for the Aegean islands.

Acer regiae-amaliae Orph. ex Boiss. (Fig. 14)

N slopes of Skotini Mt. above Metochion. Rocky slope below the summit. Ca 900 m. ABBZ 350, 353; E slopes of Dirphys. W of Stropones. The route from the hospice to the summit. 1400—1500 m. ABBZ 396; The pass between Stavros and Agia Sophia. Rocky eroded slope. 1000—1050 m, ABBZ 423; N slope of the mount 1228 m above Sarakinikon and Vlachia, ABBZ 436. This species was recently reduced by Aldén (Strid 1986) to a variety of *Acer opalus* Miller subsp. *hyrcanum* (Fischer et C. A. Mayer) E. Murray.

Acer sempervirens L. (Fig. 15)

Wayside maquis near Ellinika by the road to Vassilika. ABBZ 530; Kirindos, NNW of Mandilion. Edge of *Pinus halepensis* forest. In maquis. ABBZ 551. Field obs.: 30.

Anacardiaceae

Cotinus coggygria Scop. (Fig. 16)

Deep rocky stream valley 1 km NW of Daphni, 4 km NW of Politika. ABBZ 409. Field obs.: 3, 7, 13—17, 19—21, 23—25, 27—30, 33, 38, 41—42, 44—48, 50, 53, 55, 56—58, 66, 69, 70—72.

Pistacia lentiscus L. (Fig. 17)

Deep rocky stream valley 1 km NW of Daphni, 4 km NW of Politika. ABBZ



Fig. 5. *Nerium oleander* — specimen covered up by sand on the Marmarion beach W of Karistos (Phot. A. Boratyński)

412. Field obs.: 1—9, 11, 13, 15—19, 25, 28—35, 37—43, 45, 48, 51—52, 56, 60—64, 66, 69—70, 73—76, 78—100, 103, 105, 110, 112, 115.

Pistacia terebinthus L. (Fig. 18)

SE foot of Xiron Mt. Kurkuli. Wayside thickets by the road from the village towards the summit. ABBZ 487. Field obs.: 2—3, 6—9, 11, 13—23, 25—26, 28—34, 36, 38, 40—41, 43—44, 46—50, 52—53, 55—57, 63—66, 68—70, 72, 74, 78, 86, 89, 91, 96, 99, 101—102, 105—106, 109—111, 113—115.

Rhus coriaria L. (Fig. 19)

SE slope of Xiron Mt. The path from Kurkuli to the summit. Pastures not far from the village. Common. ABBZ 452; NW slopes of Kandilion Mt. The path from Trupion towards the summit. Near the small church, probably planted. ABBZ 472; Between Papades and Kerasea NW of Achladion. Many specimens in wayside thickets. ABBZ 552. Field obs.: 32.

Apocynaceae

Nerium oleander L. (Fig. 5 and 20)

Stony gorge SW of Platanistos (E of Karystos) ABBZ 287. Field obs.: 3, 8, 11—14, 16, 18, 23, 34—35, 38, 40, 42, 49, 51—52, 55—57, 70—72, 75, 79, 81, 85—87, 94—95, 97, 102—104, 110, 112—114.

*Aquifoliaceae**Ilex aquifolium* L. (Fig. 21)

Deep shady stream valley 1 km N of Kerasea. Single specimens. ABBZ 536. Field obs.: 20.

*Araliaceae**Hedera helix* L. (Fig. 22)

Deep shady stream valley between Platanistos and Elaeon (E of Karystos). ABBZ 293; NE slopes of Telethrion Mt. above Galatsades and Kamatriades. Shady gorge in the *Castanea sativa* — *Quercus frainetto* forest. ABBZ 503. Field obs.: 6, 11, 13—16, 18, 22—25, 29—30, 33, 35, 39, 41—44, 46—49, 54—60, 67—69, 71, 75, 78, 104—107, 109—110, 113.

*Asclepiadaceae**Cionura erecta* (L.) Griseb. (Fig. 23)

Stony eroded slope ca 2 km E of Metochion by the road to Kymi. Common. ABBZ 338; 1 km NW of Daphni, 4 km NW of Politika. At the foot of the rocky slope not far from the coast. Abundantly. ABBZ 411. Field obs.: 6, 8, 11—12, 25, 30, 38, 55—57, 69, 75—78, 87, 104.

Periploca graeca L. (Fig. 24)

Midway between Pilion and Prokopion. Shady stream valley in the *Pinus halepensis* forest. ABBZ 441; 2 km N of Kechriae NNE of Limni. Small stream valley in the *Pinus halepensis* forest. ABBZ 479; Furni 3 km E of Mandilion. Wayside thickets of *Ulmus minor*, *Vitex agnus-castus* and *Rubus ulmifolius*. ABBZ 553; Agiokambos W of Istiaeia. Common in thickets of *Rubus ulmifolius* and *Pistacia lentiscus* not far from the seashore. ABBZ 565. Field obs.: 35, 38. It is a new species for the flora of Euboea. The specimens collected in Agiokambos (ABBZ 565) have pubescent leaves and shoots and represent the very rare var. *vestita* Rohlena, new for Greece. Previously it was recorded only from few localities in Jugoslavia, Albania and Turkey (Browicz 1966).

*Berberidaceae**Berberis cretica* L. (Fig. 25)

E slopes of Dirphys Mt. W of Stropones. The path from the hospice to the summit. Common on stony eroded places. Ca 1300 m. ABBZ 382.

*Betulaceae**Alnus glutinosa* (L.) Gaertner (Fig. 26)

Midway between Pilion and Prokopion. Damp shady stream valley in the *Pinus halepensis* forest. ABBZ 451; Deep shady stream valley 1,5 km E of Straphi. Frequent. ABBZ 533. Field obs.: 20, 34, 41, 59.

Carpinus orientalis Miller (Fig. 27)

Between Metochion and Kirindos W of Mandulion. Wayside maquis above the road. ABBZ 476; 3—4 km NE of Krya Monokarya along the road to Mileae. Shady stream valley not far from the small chapel. ABBZ 516; Shady stream valley 1 km NE of Kerasea. ABBZ 534; E foot of Xiron Mt. Amelandae between Agia Anna and Straphi. In thickets among fields. ABBZ 555. Previously this species was recorded from Skylojanni but this information was considered by Rechinger (1961) to be doubtful.

Ostrya carpinifolia Scop. (Fig. 28)

E foot of Ochi Mt. Komiton. Shady stream valley. ABBZ 297; SW slopes of Alokteri Mt. Between Vitala and Metochion (10 km E of Metochion). Rocky gorge below the road. ABBZ 334; NW slopes of Kandilion Mt. above Trupion. Large specimens on the rocky slope above the small church. ABBZ 459. Field obs.: 6, 15—17, 20, 23, 26, 47, 54—55, 58, 67—68, 72.

Buxaceae

Buxus sempervirens L. (Fig. 29)

N slopes of the mountain 1228 m. Between Sarakinikon and Vlachia. On scree in the upper part of the rocky stream valley. Ca 1100 m. ABBZ 431.

Capparidaceae

Capparis spinosa L. (Fig. 30)

subsp. *spinosa*

Paralia Kymis 1 km E of Kymi. On sandy seashore, common. ABBZ 326. Field obs.: 34, 49, 69, 74, 82.

subsp. *orientalis* (Duhamel) Jafri

Cape Mandili S of Buros. Rocky serpentin slope. ABBZ 282; 1 km E of Achladeri, NE of Neochorion. Rocky sea-coast. ABBZ 323; Steep rocky coast 1 km NW of Daphni, 4 km NW of Politika, ABBZ 414, 415. Field obs.: 9, 18, 34, 38, 46, 56, 62, 73, 95.

In the treatment of the genus *Capparis* we have adopted a Jafri's (Jafri 1977) species concept, which seems to be most natural and practical.

Caprifoliaceae

Lonicera etrusca Santi (Fig. 31)

Field obs.: 21, 27, 48, 50, 67—69, 109.

Lonicera implexa Aiton (Fig. 32)

Between Zarakes and Almyropotamos. Dense wayside maquis. ABBZ 264; Between Varella and Stuppaei NW of Karystos. W slope of the mountain (721 m). Rare in degraded maquis. ABBZ 310; Paralia Kymis. In maquis by the stream not far from the road to Kymi. ABBZ 328; SE foot of Xiron Mt. Kurkuli. Wayside thickets by the road from the village towards the summit. ABBZ 486. Field obs.: 16, 23, 25, 27, 29, 49, 56, 64, 69, 96.

Sambucus nigra L. (Fig. 33)

Between Alexis and Paradision NW of Karystos. In thickets below the road. ABBZ 304; N slopes of Skotini Mt. above Metochion. In thickets by the road in an apple orchard. ABBZ 367. Field obs.: 11, 41, 48, 68, 71. This is a new species for the flora of Euboea.

*Celastraceae**Euonymus europaeus* L. (Fig. 34)

E slope of Dirphys Mt. W of Stropones. The path from the hospice to the summit. Rare among stones. 1300—1400 m. ABBZ 384.

Euonymus latifolius (L.) Miller (Fig. 35)

N slopes of Skotini Mt. above Metochion. Rare on the rocky shady place below the summit. Ca 900—1000 m. ABBZ 361. Field obs.: 24.

*Chenopodiaceae**Arthrocnemum fruticosum* (L.) Moq. (Fig. 36)

Kanatadika NNW of Istiaeia. Damp sandy places NE of the village. ABBZ 524. det. V. Bochanski. This is a new species for the flora of Euboea. Previously recorded from the islets of Prasunisi and Megalonisos Petalion.

Arthrocnemum macrostachyum (Moric.) Moris et Delponte (Fig. 3 and 37)

At the S foot of Karakolidos Mt. Saline sandy places not far from the sea shore. ABBZ 227. This is the first record of the species for the flora of Euboea.

Arthrocnemum perenne (Miller) Moss (Fig. 38)

Panagia at the Almyropotamos Bay. Sandy open places by the seashore. ABBZ 266; Kanatadika NNW of Istiaeia. Damp sandy places NE of the village. ABBZ 525. det. V. Bochanski. This is the first record of the species for the flora of Euboea.

Halimione portulacoides (L.) Aellen (Fig. 39)

S foot of Karakolidos Mt. by the road from Gialtra to Aedipsos. Common on sandy damp saline places. ABBZ 226; Panagia at the Almyropotamos Bay. Sandy seashore. Frequently. ABBZ 265; Kanatadika NNW of Istiaeia. Damp saline places NE of the village. ABBZ 519; Lichada Cape on the western promontory of Evvoia. Rare on the sandy seashore. ABBZ 522. This is a new species for the flora of Euboea.

*Cistaceae**Cistus incanus* L. (Fig. 40)

E slopes of Dirphys Mt. W of Stropones. The route from the hospice to the summit. Rare, browsed. 1400—1500 m. ABBZ 397. Field obs.: 2—7, 9, 13, 15—30, 32—33, 38, 40, 42—53, 55, 57—59, 61—66, 68, 70, 72, 78, 83, 86—87, 89—91, 93—95, 97—99, 101—102, 104—106, 109—111, 114.

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

Euphorbia dendroides L. (Fig. 40) — A strong shrub up to 3 m high, with a trunk 10–15 cm in diameter. Bark greyish, smooth, with scattered lenticels. Twigs numerous, slender, greyish, with sparse lenticels. Flowers yellow, in small clusters at the ends of the twigs. Found in thickets on the W slopes above Buphalon. Record from the flora of Euboea (Rybicka 1961).

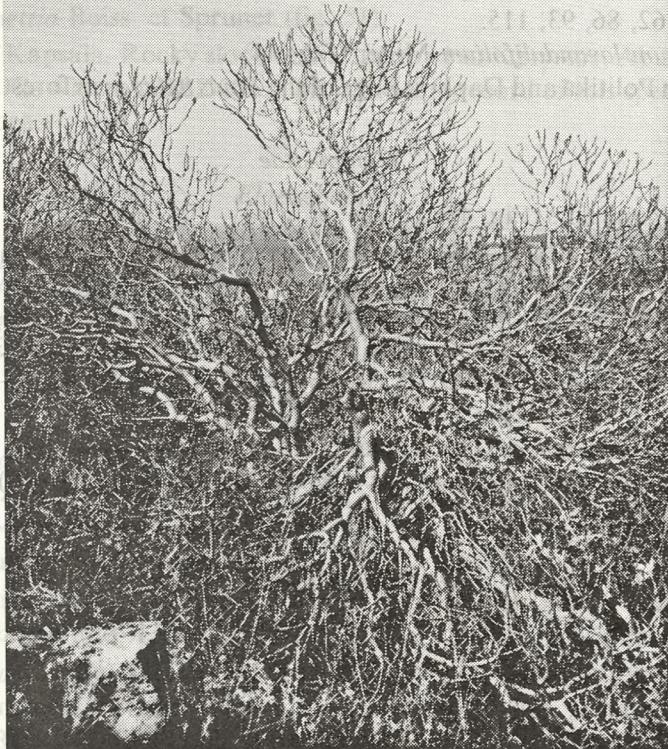


Fig. 6. *Euphorbia dendroides* — strong shrub on the W slopes above Buphalon (Phot. A. Boratyński)

Cistus monspeliensis L. (Fig. 41)

Stira. Wayside thickets by the way to Kapsala. Rare. ABBZ 313; Between Psachna and Nea Artaki. Edge of an olive orchard. ABBZ 403. Field obs.: 28—29, 49, 51—53, 63, 70, 83.

Cistus parviflorus Lam. (Fig. 42)

Between Politika and Daphni. Edge of *Pinus halepensis* forest. Rare. ABBZ 406. Field obs.: 52. This is the first record of the species for the flora of Euboea.

Cistus salvifolius L. (Fig. 43)

NE slopes of Telethrion Mt. above Galatsades and Kamatriades. Edge of *Quercus frainetto* forest. ABBZ 505. Field obs.: 4—5, 7, 16—20, 23, 27—28,

30—32, 40—43, 45, 48, 49, 52—55, 57—58, 63—65, 70—71, 83, 87, 90—91, 98—99, 101, 111, 114.

Fumana arabica (L.) Spach

Recorded from Strophylia, Koimisis, Karystos and from the area between Gerovouno and Mantudi (Rechinger 1961).

Fumana pinatzzii Rech. fil.

Recorded from Limni and Mantudi (Rechinger 1961).

Fumana thymifolia (L.) Spach ex Webb.

Between Politika and Daphni. Edge of the *Pinus halepensis* forest. ABBZ 407. Field obs.: 62, 86, 93, 115.

Helianthemum lavandulifolium Miller (Fig. 44)

Between Politika and Daphni. Edge of the *Pinus halepensis* forest. ABBZ 405.

Compositae

Centaurea spinosa L. (Fig. 45)

Panagia at the Almyropotamos Bay. Sandy seashore. Common. ABBZ 266. Field obs.: 43, 75, 104, 112, 114.

Ptilostemon chamaepeuce (L.) Less. (Fig. 46)

4 km S of Kapsala. Rocky slope above the road to Karystos. 350—400 m. ABBZ 273. Field obs.: 18—19, 23, 34, 36, 38, 43, 47, 49, 56, 69, 75—77, 93, 95, 101, 106—107.

Ptilostemon gnaphaloides (Cyr.) Soják

Recorded from Palaeochora as *Chmaepeuce fruticosa* (Desf.) DC. (Rechinger 1961).

Convolvulaceae

Convolvulus oleifolius Desf.

Recorded from Kurbatzi (Rechinger 1961).

Cornaceae

Cornus sanguinea L. (Fig. 47)

Deep shady stream valley 1 km NE of Kerasea. Rare. ABBZ 537.

Cupressaceae

Juniperus excelsa M. Bieb.

Recorded from Steni (Rechinger 1961).

Juniperus foetidissima Willd. (Fig. 48)

E slopes of Dirphys Mt. The path from the hospice to the summit. W of Stropones. Common on stony eroded places. 1300—1500 m. ABBZ 377, 398.

Juniperus oxycedrus L. (Fig. 49)

NW slopes of Kandilion Mt. The path from Trupion towards the summit.

Rocky places at the edge of *Abies cephalonica* forest. ABBZ 464. Field obs.: 3, 13, 15—17, 22, 24, 26, 33, 47, 50, 53—54, 57—59, 64—67, 69.

Juniperus phoenicea L. (Fig. 50)

Between Varellaei and Stuppaei, 10—15 km NW of Karystos, W slope of the mountain (721 m). Scattered. ABBZ 308, 309. Field obs.: 1, 30, 38, 51, 57, 61, 63—64, 66, 69, 73—74, 94—95, 98, 102.

Dipsacaceae

Scabiosa hymettia Boiss. et Spruner (fig. 51)

4 km S of Kapsala. Rocky slope below the road to Karystos. Abundantly in rock crevices. Ca 400 m. ABBZ 276. This is the first record of this species for the flora of Euboea.

Elaeagnaceae

Elaeagnus angustifolia L.

Between Kymi and Paralia Kymis. Common by the road. (Cult?) ABBZ obs.; This is the first record of this species for the flora of Euboea.

Ericaceae

Arbutus andrachne L. (Fig. 52)

Field obs.: 3, 16—18, 20, 22—23, 25, 27—28, 32, 35, 38, 41, 43, 45—50, 52—53, 63, 64, 66, 69—71, 99, 111.

Arbutus × andrachnoides Link (Fig. 53)

Moni Sotira 3 km N of Kymi. Edge of *Quercus ilex* forest, together with *Arbutus andrachne* and *A. unedo*. ABBZ 324.

Arbutus unedo L. (Fig. 54)

Wayside maquis between Sterna and Seta, ca 10 km N of Amaryndos. Common. ABBZ 240. Field obs.: 4—6, 9, 15—17, 19—20, 22—23, 25—28, 30, 32—33, 38—39, 41—45, 47—50, 52—53, 55, 57—58, 63, 65—66, 70—72, 78, 83, 86—87, 89—91, 93—94, 95—96, 98—101, 105, 109—111, 114.

Erica arborea L. (Fig. 55)

Between Pilion and Prokopion. Shady stream valley in the *Pinus halepensis* forest. ABBZ 466. Field obs.: 4, 6, 15, 17, 19—20, 23—24, 26, 28, 31, 33—34, 43—44, 47, 49, 52—54, 59, 63, 66, 68, 70—72, 78, 83, 87—91, 96, 98—103, 105, 107, 109—111, 113—114.

Erica manipuliflora (Fig. 56)

Wayside degraded maquis between Sterna and Seta, ca 10 km N of Amaryndos. ABBZ 241. Field obs.: 3—4, 20, 22—25, 28, 30, 33, 38, 42, 44—49, 53, 55, 57—58, 64, 67—70, 72, 78, 83, 86, 91, 94, 96, 99—100, 102, 103—104, 107, 111—115.

Ephedraceae

Ephedra campylopoda C. Meyer (Fig. 57)

Akros Mandili S of Buros. Rocky serpentine slope. ABBZ 281; Buphalon (Porto Buphalo) at the Buphalu Bay, SE of Aliverion. Common on the walls. ABBZ 320. Field obs.: 4—5, 36, 48—49, 51, 55, 74, 84, 90, 92, 100, 103, 112. *Ephedra major* Host subsp. *procera* (Fischer et C. Meyer) Markgraf

Recorded from Telethrion Mt. (Rechinger 1961).

Euphorbiaceae

Euphorbia acanthothamnos Heldr. et Sart. (Fig. 58)

Field obs.: 70, 91—95, 98—104, 106, 108, 112—113, 115.

Euphorbia dendroides L. (Fig. 6 and 59)

Steep seashore rocks at the Karalides Bay, E of Tsakaei. ABBZ 316; Rocky slope at the Buphalu Bay. Buphalon (Porto Buphalo) SE of Aliverion. Very abundant. ABBZ 318. Field obs.: 45—46, 56, 70, 77. This species was considered by Rechinger (1961) to be doubtful in Euboea.

Fagaceae

Castanea sativa Miller (Fig. 60)

Abies cephalonica — *Castanea sativa* forest below the pass between Stropones and Steni Dirphys. ABBZ 401; NE slopes of Telethrion Mt. above Galatsades and Kamatriades. *Castanea sativa* — *Quercus frainetto* forest. ABBZ 507. Field obs.: 21, 24, 54, 57—58, 67, 68, 109.

Quercus cerris L.

Recorded from Kandili Mt. and Vassilikopatamos (Rechinger 1961).

Quercus coccifera L. (Fig. 61)

Between Varellaei and Stuppaei 10—15 km NW of Karytos. W slope of the mountain 721 m. Large trees in a stony gorge. ABBZ 307, 312. Field obs.: 2—8, 11, 13—15, 17—19, 21—25, 27—60, 63—66, 68—72, 74, 82, 85—87, 89—108, 110—115.

Quercus dalechampii Ten. (Fig. 62)

2—3 km N of Istiaea by the road to Asiminion. Small oak forest among fields. Large trees. ABBZ 521.

Quercus euboica Papajoannou (Fig. 63)

Stony slopes between Kerasea and Papades. Frequent. Intensively browsed. ABBZ, 541—547, 549.

Quercus frainetto Ten. (Fig. 64)

NE slopes of Telethrion Mt. *Quercus frainetto* forest above Galatsades. ABBZ 502. Field obs.: 12, 20—21, 26.

Quercus ilex L. (Fig. 7 and 65)

Maquis on the hillsides between Agios and Agiokambos. ABBZ 234; S slopes of Olympos Mt. Ca 15 km N of Amaryndos. Single trees on rocky slope,



Fig. 7. *Quercus ilex* — specimen with the crown formed by the wind; a ridge of hill near Vatision, NW of Karystos, ca 500 m alt. (Phot. A. Boratyński)

900—950 m, ABBZ 256; E slopes of Ochi Mt. Komiton. Shady stream valley. ABBZ 297; Between Varrellaei and Stuppaei 10—15 km NW of Karystos. W slope of the mountain (721 m). Common. ABBZ 306; E slopes of Dirphys Mt. N of Steni Dirphys, W of Stropones. Rocky eroded places by the road from the hospice to the summit. 1300 m. ABBZ 376; NW foot of Kandilion Mt. Trupion. Common in maquis. ABBZ 456. Field obs.: 8, 13, 15—17, 19—20, 22—23, 26—29, 40—47, 49—50, 53—58, 64—72, 78, 87, 89, 91, 96, 98—102, 105, 110—111, 114.

Quercus macrolepis Kotschy (Fig. 8 and 66)

Agios Dimitros SW of Zarakes at the Almyropotamos Bay. Stony slope above the village. Common. ABBZ 267; Between Krieza and Dystos, SEE of Aliverion (nearer Dystos). Edge of a neglected garden. Single large trees. ABBZ 257. Field obs.: 41, 87—88, 92, 98, 103—104, 106. This is a new species for the flora of Euboea.

Quercus petraea (Mattuschka) Liebl. (Fig. 67) subsp. *petraea*

1 km NE of Kerasea, by the road to Papades. ABBZ 540.
subsp. *iberica* (Steven ex Bieb.) Krassil.

Between Pilion and Prokopion. Wayside wood. ABBZ 450; Near Prokopion, along the road on the edge of *Pinus halepensis* forest. ABBZ 457. This is a new species for the flora of Euboea.

Quercus pubescens Willd. (Fig. 68)

Platanistos E of Karystos, Stony slope above the road. Large trees. ABBZ 289. Sotira near Moni Sotira, N of Kymi. Wayside thickets. ABBZ 331; Between Prokopion and Pilion. Wayside thickets. ABBZ 448, 449; N slope of Kandilion Mt. The path from Trupion towards the summit. Stony eroded slope above the small church. ABBZ 462; Amelandae between Agia Anna and Straphi. In thickets among fields. ABBZ 554. Field obs.: 6—7, 14, 16, 17, 19—24, 26—27, 29, 33, 35, 39—41, 46, 48, 57—58, 60, 66, 68—69, 71—72, 102, 105—110, 113.

Quercus virgiliiana (Ten.) Ten.

Recorded from Lotho, Telethron Mt. and Agia Anna (Rechinger 1961).

*Globulariaceae**Globularia alypum* L. (Fig. 69)

S slopes of Olympos Mt. Ca 15 km N of Amaryndos. Among stones in *Juniperus oxycedrus* scrub. Ca 500—550 m. ABBZ 250; Rocky slope with maquis, MW of Daphni, 4 km NW of Politika. ABBZ 418. Filed obs.: 18, 32, 38.

*Grossulariaceae**Ribes orientale* Desf. (Fig. 70)

E slopes of Dirphys Mt. W of Stropones. The path from the hospice to the summit. In rock crevices. ABBZ 395.

*Guttiferae**Hypericum empetrifolium* Willd. (Fig. 71)

E slopes of Dirphys Mt. W of Stropones. The route from the hospice to the summit. Rare among stones. Ca 1300 m. ABBZ 380. Field obs.: 2—3, 6, 16, 18—20, 22—23, 27, 30, 32, 34, 38, 42—49, 51—55, 57, 61, 64, 68—72, 75, 78, 86—87, 91, 93, 96, 99—102, 105, 114.

*Labiateae**Coridothymus capitatus* (L.) Reichb. f. (Fig. 72)

Kanatadika NNW of Istiae. Very common on sandy ground NE of the village. ABBZ 526. Filed obs.: 4, 6, 9, 10, 13, 18—19, 25, 27—28, 30—32, 34—35, 38, 41, 48—49, 53, 57, 58, 60—66, 69—70, 74, 82—83, 85—87, 89—93, 97—98, 101, 104—106, 112, 114—115.

Lavandula stoechas L. (Fig. 73)

W of Koskina, 7 km SE of Krieza. In phrygana on the stony seashore, ABBZ 259; Near Platanistos. Stony wayside by the road to Elaeon (E of Karystos) ABBZ 292. Field obs.: 38, 58, 78, 83, 87, 89, 91, 94, 97—99, 103, 107—110, 114.

Micromeria graeca (L.) Benth ex Reichb.

E foot of Ochi Mt. Evangelismos. Dry stony places near the church. ABBZ 298; Between Prokopion and Daphnussa. Low wayside scrub. ABBZ 454.

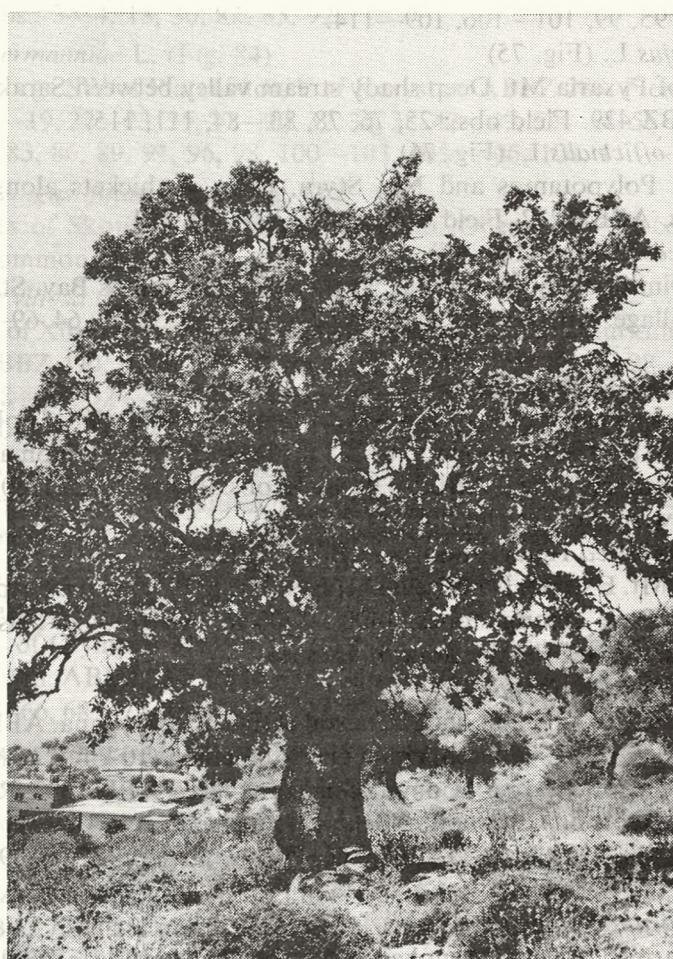


Fig. 8. *Quercus macrolepis* — a big tree near Ajios Dimitrios SW of Zarakes (Phot. A. Boratyński)

Micromeria juliana (L.) Benth ex Reichb.

4 km S of Kapsala. Stony hillside above the road to Karystos. Ca 400 m alt. Frequently. ABBZ 277, 278; NE slopes of Telethron Mt. above Galatsades and Kamatriades. Low wayside thickets. ABBZ 509. Field obs.: 49, 57, 60, 65, 67, 84, 99—100, 106—107.

Micromeria myrtifolia Boiss. et Hohen.

Recorded from Palaeochora, vicinity of Vassilika and from Chalkis (Rechinger 1961).

Micromeria nervosa (Desf.) Benth.

Recorded from Kurbatzi (Rechinger 1961).

Phlomis fruticosa L. (Fig. 74) Common in wayside thickets. ABBZ 300.

Field obs.: 2, 6, 33—36, 41, 43, 46, 51, 53—58, 60, 64, 68—69, 72, 74—76, 82—84, 88, 92, 94—95, 99, 101—106, 109—114.

Prasium majus L. (Fig. 75)

N foot of Pyxaria Mt. Deep shady stream valley between Sarakinikon and Vlachi. ABBZ 429. Field obs.: 25, 76, 78, 83—84, 111, 115.

Rosmarinus officinalis L. (Fig. 76)

Between Polypotamos and Nea Styra. Edge of thickets along the road. Abundantly. ABBZ 272. Field obs.: 30, 93—94, 96, 111.

Salvia fruticosa Miller (Fig. 77)

Agios Dimitros SW of Zarakes, at the Almyropotamos Bay. Stony hillside above the village. ABBZ 271. Field obs.: 2—3, 38, 46, 55, 57, 64, 69—70, 91, 99, 101, 106.

Salvia pomifera L. (Fig. 78)

Deep rocky stream valley 1 km NW of Daphni, 4 km NW of Politika. Rare. ABBZ 413; N foot of the mountain 1228 m. Between Sarakinikon and Vlachia. Deep rocky stream valley. ABBZ 430. Field obs.: 9, 18—19, 22, 30, 34, 38, 48. This is a new species for the flora of Euboea.

Satureja parnassica Heldr. et Sart. ex Boiss. (Fig. 79)

Dirphys Mt. E slopes N of Steni Dirphys. The path from the hospice towards the summit. Rare among stones. 1400—1700 m. ABBZ 392. This is the first record of the species for the flora of Euboea.

Satureja thymbra L. (Fig. 80)

Loui Beach W of Malakonda. Coastal cliffs with phrygana. ABBZ 238; SW slopes of Alokteri Mt. between Vitala and Metochion (10 km E of Metochion). Rocky gorge below the road. Common in open places. ABBZ 337; Rocky slopes S of Loutra Aedipsu. Common. ABBZ 497. Field obs.: 1—2, 4, 9, 16—18, 23, 27—28, 31, 41—43, 49, 57—58, 65—66, 70, 72, 75—76, 87, 89, 91, 97—102, 105—109, 111—112, 114.

Thymbra spicata L. (Fig. 81)

3—4 km NE of Krya Monokarya, by the way to Mileae. Valley of Kalas river. Rare in low scrub. ABBZ 511. This is a new species for the flora of Euboea.

Lauraceae

Laurus nobilis L. (Fig. 82)

E foot of Ochi Mt. Kamiton. Shady stream valley. ABBZ 296; At the foot of Skotini Mt. above Metochion. Wayside thickets not far from the village. Planted? ABBZ 370; N slope of the mountain 1228 m. Between Sarakinikon and Vlachia. Rocky shady stream valley. ABBZ 433; Artemision NE of Istiaeia. Single small tree near the village among olive orchards. Planted? ABBZ 529. Field obs.: 15—16, 38, 45, 49, 54—58, 70, 105.

Leguminosae

Adenocarpus complicatus (L.) Gay

Recorded from Dirphys, Xerovuni and Steni (Rechinger 1961).

Anagyris foetida L. (Fig. 83)

Field obs.: 3—4, 13, 30, 82, 85, 92.

Anthyllis hermanniae L. (Fig. 84)

Stony gorge SW of Platanistos, E of Karystos. ABBZ 288. Field obs.: 3—4, 15—16, 18—19, 22—23, 25, 27—30, 32, 34, 38, 42—49, 52—54, 56—57, 61—66, 70, 72, 76, 83, 86, 89, 91, 96, 98, 100—103, 105—106, 108, 113—115.

Astragalus angustifolius Lam. (Fig. 85)

N slopes of Skotini Mt. above Metochion. Open rocky places below the summit. Common. Ca 1200 m. ABBZ 358.

Calicotome villosa (Poiret) Link (Fig. 86)

SE foot of Xiron Mt. Wayside thickets by the road from Kurkuli towards the summit. ABBZ 490. Field obs.: 2—6, 8—9, 13, 15—19, 23, 25, 28—34, 36—38, 41, 43, 46, 48—49, 52—57, 63—64, 68, 70, 72, 74, 78, 81—83, 85—87, 90—95, 97—98, 100—109, 111—115.

Ceratonia siliqua L. (Fig. 87)

Between Politika and Daphni. By the road. Large trees. ABBZ 408; NE foot of Kandilion Mt. Moni Galataki. By the road not far from the coast. Large trees. ABBZ 492. Field obs.: 49, 55, 94, 97, 99.

Cercis siliquastrum L. (Fig. 88)

S slopes of Olympos Mt., ca 15 km N of Amaryndos. *Juniperus oxycedrus* thickets. 900 m. ABBZ 252. Field obs.: 3, 6, 8, 10—33, 35—36, 38—52, 54—57, 60—61, 65—66, 68—72, 75—76, 78, 97, 99, 102, 105—108, 110—111, 113—115.

Chamaecytisus supinus (L.) Link

Recorded from Dirphys and Messorachi (Rechinger 1961).

Colutea arborescens L. (Fig. 89)

Moni Sotira 3 km N of Kymi. On rocky eroded slopes in degraded maquis. Rare. ABBZ 325; Metochiu Bay 4 km N of Metochion. Rocky slope above the beach. ABBZ 273. Field obs.: 13, 15—16, 19, 25, 27, 29—30, 32—34, 39—42, 45, 52, 55, 56—58, 68—69, 71, 75, 76.

Coronilla emerus L. subsp. *emeroides* (Boiss. et Spruner) Hayek (Fig. 90)

Between Varellaei and Stuppaei NW of Karystos. Rock crevices. Rare. ABBZ 311; 2 km N of Kechriae NNE of Limni. Small stream valley in the *Pinus halepensis* forest. ABBZ 478. Filed obs.: 15—16, 22, 25, 34, 39—40, 42, 45—49, 56, 67, 69, 90.

Coronilla valentina L. subsp. *glaucia* (L.) Battand. (Fig. 91)

Paralia Kostikias NNE of Achladion. In phrygana on the rocky seashore coast. ABBZ 560.

Cytisus villosus Pourret (Fig. 92)

2—3 km S of Papades by the road to Agia Anna. Edge of *Quercus frainetto* wood. Frequently. ABBZ 231; E slopes of Ochi Mt. Kapsurion. Abundantly in wayside thickets. ABBZ 301; Between Vassilika and Papades. Frequently in wayside thickets. ABBZ 531. Field obs.: 19, 57—58, 68, 105.

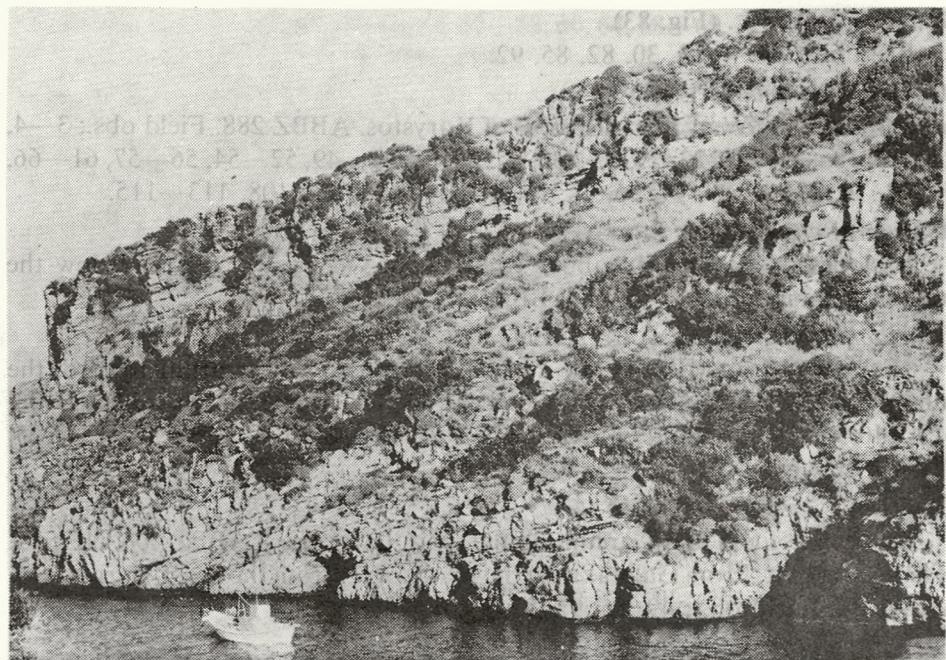


Fig. 9. A rock above Keralides Bay E of Tsakei, locality of *Medicago arborea* (Phot. A. Boratyński)

Genista acanthoclada DC. (Fig. 93)

Field obs.: 2—4, 7, 15—16, 49—50, 52—54, 57—58, 60—64, 66, 69—72, 74—76, 78, 81—83, 85—87, 89—94, 98—101, 103—115.

Genista lydia Boiss.

Recorded from Dirphys (Rechinger 1961).

Genista millii Heldr. ex Boiss. (Fig. 94)

Seta, ca 20 km N of Amaryndos. E pastured slopes of Zygos Mt. Rare between stones. ABBZ 249; E slopes of Dirphys. W of Stropones. The path from the hospice towards the summit. On stony eroded places. 1100—1200 m. ABBZ 379.

Medicago arborea L. (Fig. 9 and 95)

Steep seashore rocks at the Karalides Bay E of Tsakaei. ABBZ 315.

Podocytisus caramanicus Boiss. et Heldr.

Recorded from N Euboea (Rechinger 1961).

Spartium junceum L. (Fig. 96)

Field obs.: 2—4, 6, 13—14, 16—19, 22—25, 27—30, 32—35, 37, 39, 40, 46, 49, 51—55, 57—61, 63, 68—72, 76, 78, 81, 83, 84—86, 89—92, 94, 96—98, 103—111, 113.

Teline monspessulana (L.) K. Koch (Fig. 97)

Between Kuturla and Stropones W of Kymi. Common in the wayside maquis. ABBZ 372; NE slopes of Telethrion Mt. above Galatsades and Kamatriades. Sunny places by the road in *Castanea sativa*—*Quercus frainetto*

forest. ABBZ 507; Damp shady stream valley between Krya Monokarya and Mileae E of Istiae. ABBZ 563. Field obs.: 68.

Loranthaceae

Loranthus europaeus Jacq. (Fig. 98)

The pass between Stropones and Steni Dirphys. *Abies cephalonica* — *Castanea sativa* forest. Large specimens on *Castanea sativa*. Common. ABBZ 400; NE slopes of Telethron Mt. above Galatsades and Kamatriades. Common in *Quercus frainetto* forest. ABBZ 500. Field obs.: 22, 53, 59, 67—69.

Viscum album L. subsp. *abietis* (Wiesb.) Abrom. (Fig. 99)

Seta ca 20 km N of Amaryndos. E slope of Zygos Mt. Just below the top, on *Abies cephalonica*. Ca 1100 m. ABBZ 246. Field obs.: 22, 53, 59, 67, 68—69.

Malvaceae

Lavatera bryoniifolia Miller (Fig. 100)

Valley of Kalas river between Krya Monokarya and Mileae E of Istiae. Rare by the stream not far from the small chapel. ABBZ 564. This is the first record of the species for the flora of Euboea.

Myrtaceae

Myrtus communis L. (Fig. 101)

Stony gorge SW of Platanistos (E of Karystos). ABBZ 285. Filed obs.: 1—4, 6, 8, 10—11, 15—16, 18—19, 23, 25, 29—30, 33, 38, 40—43, 45—49, 52, 56, 58, 60, 68—72, 75, 78, 83, 87, 96, 101—102, 105, 110, 112.

Oleaceae

Fraxinus excelsior L.

Recorded from Pyxaria (Rechinger 1961.)

Fraxinus ornus L. (Fig. 102)

S slopes of Olympos Mt. Ca 15 km N of Amaryndos. Dry stony slope with *Juniperus oxycedrus* scrub. 900—950 m. ABBZ 253; Deep shady stream valley between Platanistos and Elaeon (E of Karystos). ABBZ 294. Field obs.: 15—18, 22—24, 26, 34, 41, 43, 47, 49, 54, 56—59, 67—69, 105, 107, 109.

Ligustrum vulgare L.

Recorded from Telethron Mt. (Rechinger 1961).

Olea europaea L. var. *sylvestris* Brot. (Fig. 103)

Wayside thickets between Agiokambos and Agios. Frequently. ABBZ 229; Between Zarakes and Almyropotamos. Common in degraded maquis. ABBZ 260. Field obs.: 1—4, 8—9, 18—19, 25, 28—29, 31—35, 38, 43, 45, 48—49, 61, 66, 70—71, 74—75, 78, 82—83, 85, 90—95, 97—98, 101—104, 106—108, 110, 113—115.



Fig. 10. *Abies cephalonica* — a group of trees on the NW slopes of Dirphys Mt. at 1650—1700 m alt.
(Phot. A. Boratyński)

Phillyrea latifolia L. (Fig. 104)

Stony gorge SW of Platanistos E of Karystos. ABBZ 286; NW slopes of Kandilion Mt. The path from Trupion towards the summit. Rocky places on the edge of *Abies cephalonica* forest. ABBZ 467. Field obs.: 3, 6—7, 11, 15—17, 19—20, 22—23, 25—28, 30, 34—36, 39—41, 43, 45—47, 49—50, 53—57, 63—64, 67—70, 72, 74, 78, 86, 90, 93—95, 99—102, 105—106, 108, 111, 115.

Pinaceae

Abies cephalonica Loudon (Fig. 10 and 105)

E slopes of Zygos Mt. above Seta, ca 20 km N of Amaryndos. *Abies cephalonica* forest, above 800 m. ABBZ 249. Field obs.: 21—22, 24, 26, 41, 47—48, 50, 53—54, 57—59, 64, 66—69, 72.

Pinus halepensis Miller (Fig. 106)

SE foot of Xiron Mt. *Pinus halepensis* forest by the way from Kurkuli towards the summit. ABBZ 488; Seta 20 km N of Amaryndos. Stony slopes of Zygos Mt. 400—500 m. ABBZ 520. Field obs.: 1—5, 8, 11, 13—23, 25—26, 28—50, 52—61, 63—64, 66, 69—75, 94, 99.

Pinus nigra Arnold subsp. *pallasiana* (Lamb.) Holmboe (Fig. 107) N slopes of the mountain 1228 m. In the rocky stream valley between Sarakinikon and Vlachia. Very common forming forests above 1200 m. ABBZ

443; NW slopes of Kandilion Mt. The path from Trupion towards the summit. Very common forming forests below the top. ABBZ 468. Field obs.: 12, 21—22, 24, 26.

Pinus pinea L. (Fig. 108)

Midway between Pilion and Prokopion. Edge of an open *Pinus halepensis* forest. Few specimens. ABBZ 442. Field obs.: 12, 40—41.

Platanaceae

Platanus orientalis L. (Fig. 109)

By the stream between Prokopion and Daphnussa. Common. ABBZ 455. Field obs.: 3—4, 6, 8—21, 23—27, 29—31, 33—40, 42—45, 47—60, 63, 65, 67—72, 75—76, 78—79, 83, 85, 87, 89, 91, 94, 97—98, 102, 104—111, 113—114.

Ranunculaceae

Clematis cirrhosa L. (Fig. 110)

Field obs.: 54, 64, 75, 79, 83—86, 88, 90, 92, 94—95, 97, 99, 102, 104—105.

Clematis flammula L. (Fig. 111)

Paralia Kymis, 1 km E of Kymi. Damp places by the stream not far from the road to Kymi. In maquis. ABBZ 330. Field obs.: 2, 4, 7—9, 11, 13—15, 18—20, 25, 27—29, 32—33, 35, 40—46, 48—49, 52, 54—58, 60, 63, 68, 70—71, 78, 83, 97, 99, 105, 108, 110.

Clematis vitalba L. (Fig. 112)

Platanistos E of Karystos. Stony slope above the road. In thickets. ABBZ 290; Paralia Kymis. In maquis by the stream not far from the road to Kymi. ABBZ 329. Field obs.: 11, 16—17, 19—20, 22—24, 29—30, 33, 35—36, 39—41, 43, 47, 49, 52, 54—60, 67—68, 70, 105, 107, 109, 114.

Clematis viticella L.

Recorded from Kandili Pass (Rechinger 1961).

Rhamnaceae

Frangula rupestris (Scop.) Schur (Fig. 113)

N slope of Skotini Mt. above Metochion. The path towards the summit in the *Abies cephalonica* forest. Rare. Ca 650 m. (ABBZ 349; Ibidem. Rocky places below the summit. Ca 1000 m. ABBZ 355, 359; E slopes of Dirphys Mt. W of Stropones. The path from the hospice to the summit. Scattered among stones. 1300—1400 m. ABBZ 388, 394; N slopes of the mountain 1228 m above Sarakinikon and Vlachia. Rare on steep rocks. ABBZ 453.

Paliurus spina-christi Miller (Fig. 114)

Midway between Pilion and Prokopion. Common in wayside thickets. ABBZ 455. Field obs.: 2, 6—8, 10—11, 13—19, 30, 33—37, 39—41, 43—46, 51, 54—60, 68—69.

Rhamnus alaternus L. (Fig. 115)

Between Zarakes and Almyropotamos. Dense wayside maquis. ABBZ 262. Field obs.: 5—6, 16, 30, 42, 49, 56, 66, 69, 71—72, 75, 93, 95.

Rhamnus oleoides L. (Fig. 116)

4 km of Kapsala. Rocky slope above the road to Karystos. Ca 450 m. ABBZ 278, 279; Steep seashore rocks at the Karalides Bay, E of Tsakaei. ABBZ 314; Rocky coast with maquis 1 km NW of Daphni, 4 km NW of Politika. ABBZ 417; NE foot of Kandilion Mt. Moni Galataki. Steep rocky slope with maquis. Single specimens. ABBZ 491. Field obs.: 1, 3, 9. This is a new species for the flora of Euboea.

Rhamnus prunifolius Sibth. et Smith (Fig. 117)

N slope of Skotini Mt. above Metochion. Open rocky places below the summit. Ca 900 m. ABBZ 347; NW slopes of Kandilion Mt. The path from Trupion towards the summit. Rocky open places below the top. ABBZ 470. Field obs.: 47.

Rosaceae

Amelanchier chelmea (Halácsy) Browicz (Fig. 11 and 118)

SW slopes of Alokteri Mt. Between Vitala and Metochion (10 km E of Metochion). Dry gorge below the road. In rock crevices. ABBZ 336; N slope of the mountain 1228 m. On walls of the rocky deep stream valley between Sarakinikion and Vlachia. Frequent in places. 900—1000 m. ABBZ 432; N slope of the mountain 1228 m above Sarakinikion and Vlachia. Steep rocks, in crevices. Ca 1300 m. ABBZ 437; NW slopes of Kandilion Mt. The path from Trupion towards the summit. Rock crevices not far from the small church. ABBZ 461, 469. This is a new species for the flora of Euboea.

Amelanchier ovalis Medicus

subsp. *ovalis* (Fig. 119)

E slopes of Dirphys, W of Stropones. The route from the hospice to the summit. Rare in rock crevices. 1400—1700 m alt. ABBZ 390, 391. This is the first record of this subspecies for the Aegean islands.

subsp. *cretica* (Willd.) Maire et Petitmengin

Recorded from Skotini Mt. (Phitos 1960).

Amygdalus webbii Spach (Fig. 120)

Agios Dimitros SW of Zarakes, at the Almyropotamos Bay. Stony slope above the village. ABBZ 268, 270; Buphalon (Porto Buphalo) at the Buphalo Bay. Scattered on rocky slopes. ABBZ 319; 3—4 km SW of Katheni by the way to Nea Artaki. Few specimens on fallow fields. ABBZ 402. Field obs.: 92, 112. This is a new species for the flora of Euboea.

Cerasus mahaleb (L.) Miller (Fig. 121)

NW slopes of Kandilion Mt. above Trupion! Near the small church many low specimens. Wild? ABBZ 458.

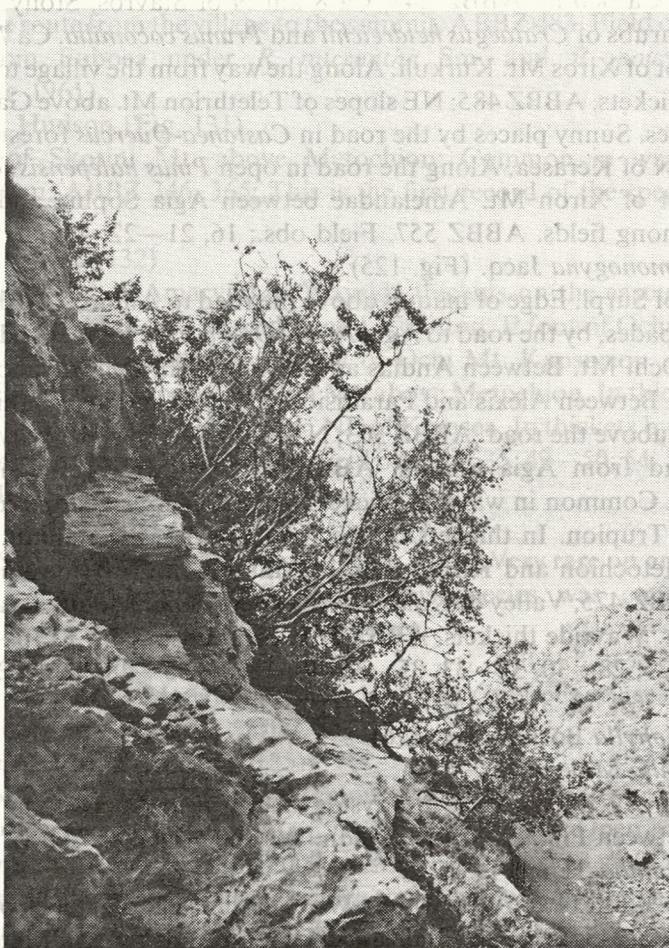


Fig. 11. *Amelanchier chelmea* — a large shrub on NW steep, rocky slope of Alokeri Mt. Mt. W. of Kymi, ca 850 m alt. (Phot. A. Boratyński)

Cerasus prostrata (Labill.) Ser. (Fig. 122)

N slopes of Skotini Mt. above Metochion. Open rocky places below the summit. In rock crevices. Ca 1000 m. ABBZ 363; E slopes of Dirphys Mt. W of Stropones. The route from the hospice to the summit. In rock crevices. 1400—1700 m. ABBZ 393. Field obs.: 47.

Cotoneaster nebrodensis (Guss.) K. Koch (Fig. 123)

N slopes of Skotini Mt. above Metochion. Rocky open places below the summit. Rare. Ca 1000 m. ABBZ 352; E slopes of Dirphys. W of Stropones. The route from the hospice to the summit. Rare among stones. Browsed. 1300—1400 m. ABBZ 386.

Crataegus heldreichii Boiss. (Fig. 124)

Seta ca 20 km N of Amaryndos. Wayside thickets on the eastern slope of Zygos Mt. Ca 600 m. ABBZ 247; Ca 8 km N of Stavros. Stony pasture with scattered shrubs of *Crataegus heldreichii* and *Prunus cocomilia*. Ca 700 m. ABBZ 423; SE foot of Xiros Mt. Kurkuli. Along the way from the village to the summit. Wayside thickets. ABBZ 485; NE slopes of Telethrion Mt. above Galatsades and Kamatriades. Sunny places by the road in *Castanea-Quercus* forest. ABBZ 504; 508; 1 km N of Kerasea. Along the road in open *Pinus halepensis* forest. ABBZ 535; E foot of Xiron Mt. Amelandae between Agia Sophia and Straphi. In thickets among fields. ABBZ 557. Field obs.: 16, 21—22, 48, 50, 54, 68, 69.

Crataegus monogyna Jacq. (Fig. 125)

E foot of Surpi. Edge of maquis above the road to Almiros. ABBZ 225; 2—3 km S of Papades, by the road to Agia Anna. *Quercus frainetto* wood. ABBZ 232; E foot of Ochi Mt. Between Andias and Komiton. In thickets above the road. ABBZ 296; Between Alexis and Paradision NW of Karystos. In thickets on the steep slope above the road. ABBZ 303; N foot of Dirphys Mt. Wayside thickets by the road from Agia Sophia. ABBZ 427; Midway between Pilion and Prokopion. Common in wayside thickets. ABBZ 444; NW slopes of Kandilion Mt. above Trupion. In thickets by the road towards the summit. ABBZ 473; Between Metochion and Kirindos W of Mandilion. Wayside thickets by the stream. ABBZ 475; Valley of Kalas river between Krya Monokarya and Mileae E of Istiaeia. Wayside thickets. ABBZ 561. Field obs.: 3, 6—8, 10—11, 14—15, 17, 19, 23, 25, 28—30, 32—33, 35—36, 40, 41, 43, 45—48, 54—55, 57—58, 60, 65—66, 67—69, 72, 81, 85, 101, 107, 110, 113.

Malus dasypylla Borkh. (Fig. 126)

(*Malus pumila* Miller)

N slopes of Dirphys. Rare in wayside maquis near Agia Sophia. ABBZ 425; Midway between Pilion and Prokopion. Wayside thickets. ABBZ 442.

Prunus cocomilia Ten. (Fig. 127)

Seta ca 20 km N of Amaryndos. Wayside thickets on slopes of Zygos Mt. 400 m. ABBZ 243; Between Vitala and Metochion (10 km E of Metochion). SW slopes of Alokeri Mt. Rocky gorge below the road. ABBZ 333. Fields obs.: 17, 21, 24, 47, 48, 53—54, 57, 59, 68.

Prunus spinosa L. subsp. *dasyphylla* (Schur) Domin (Fig. 128)

Wayside thickets between Agiokambos and Agios. ABBZ 228; Pilion SE of Mandilion. Wayside thickets by the road to Vlachia. ABBZ 438; Midway between Pilion and Prokopion. Wayside thickets. ABBZ 447. Field obs.: 3, 7, 10—11, 13, 17, 19, 21—22, 27, 29, 32—33, 35—36, 39—41, 48. This is a new species for the flora of Euboea.

Pyrus spinosa Forsskal (Fig. 129)

Agios Dimitros SW of Zarakes at the Almyropotamos Bay. Stony slope above the village. ABBZ 269. Field obs.: 1—4, 6—11, 13—23, 25, 27, 29—37, 39—50, 52—55, 57—63, 65—66, 68—69, 71—74, 76, 78—81, 83—84, 86—94, 96—99, 101—114.

Rosa agrestis Savi (Fig. 130)

Seta ca 20 km N of Amaryndos. Wayside thickets on the eastern slope of Zygos Mt. Ca 400 m. ABBZ 244, 245; SE slope of Xiron Mt., Kurkuli. Wayside thickets by the route from the village to the summit. ABBZ 483. Field obs.: 17, 54. Recorded from Euboea under *R. micrantha* Sm. and *R. pouzinii* Tratt. (Rechinger 1961).

Rosa arvensis Hudson (Fig. 131)

N slope of Skotini Mt. above Metochion. Common in wayside thickets. 500—600 m. ABBZ 346, 365; This is the first record of the species for the flora of Euboea.

Rosa canina L. (Fig. 132)

Seta ca 20 km N of Amaryndos. Wayside thickets on the eastern slope of Zygos Mt. ABBZ 242; Between Andias and Komiton. E foot of Ochi Mt. Steep slope above the road. ABBZ 295; E foot of Ochi Mt. Kapsurion. In wayside thickets. ABBZ 299; N slopes of Skotini Mt. above Metochion. In thickets below the summit. Ca 900 m. ABBZ 358; 2 km NE of Kerasea. In thickets by the way in the *Pinus halepensis* forest. ABBZ 538. Field obs.: 17, 35, 49—50, 54, 57, 59—61, 65, 67—69, 107.

Rosa gallica L. (Fig. 133)

2—3 km S of Papades. By the road to Agia Anna. Very rare on grassy places in *Quercus frainetto* scrub. ABBZ 230. This species was considered by Rechinger (1961) to be doubtful in Euboea.

Rosa heckeliana Tratt. (Fig. 134)

N slopes of Skotini Mt. above Metochion. Rocky open places below the summit. browsed. Ca 1100 m. ABBZ 356.

Rosa pulverulenta M. Bieb. (Fig. 135)

N slope of Skotini Mt. above Metochion. Along the path towards the top in the *Abies cephalonica* forest. Ca 600 m. ABBZ 345; Ibidem. Open rocky places below the summit. browsed. 800—1000 m. ABBZ 365; E slopes of Dirphys Mt. W of Stropones. The path from the hospice towards the summit. Among stones in *Berberis cretica* scrub. ABBZ 382, 387.

Rosa sempervirens L. (Fig. 136)

Platanistos E of Karystos. In thickets on the stony slope above the road. ABBZ 291. Field obs.: 3—4, 10, 14—17, 22, 24, 29—30, 33, 39—43, 46, 55, 57, 58—59, 68—69, 71—72, 78, 102, 105, 108—111, 114.

Rubus canescens DC. (Fig. 137)

The way from Kurkuli towards the summit of Xiron Mt. SE slopes. In wayside thickets. ABBZ 480. Field obs.: 7—8, 13, 16—17, 21—22, 32, 37, 66.

Rubus hirtus Waldst. et Kit. agg. (Fig. 138)

2—3 km S of Stropones towards Steni Dirphys. Edge of *Abies cephalonica* forest. Common along the road. ABBZ 374. This is the first record of the species for the flora of Euboea.

Rubus ulmifolius Schott (Fig. 139)

N slope of Skotini Mt. above Metochion. Edge of *Abies cephalonica* forest.

Ca 500 m. ABBZ 342. Field obs.: 2—4, 6—49, 51—52, 54—61, 65—66, 68—69, 71—72, 74—76, 78—91, 94, 96, 97—99, 101—114.

Sarcopoterium spinosum (L.) Spach (Fig. 140)

Field obs.: 1—4, 8, 16, 19, 25, 30—31, 33—34, 37—43, 48—53, 56, 60—66, 69—70, 72—76, 78, 81—115.

Sorbus aria (L.) Crantz subsp. *aria* (Fig. 141)

N slopes of Skotini Mt. above Metochion. Steep rocky walls below the summit. 900—1000 m. ABBZ 360; E slopes of Dirphys. W of Stropones. The route from the hospice to the summit. In rock crevices. 1400—1700 m. ABBZ 389.

Sorbus domestica L. (Fig. 142)

Between Metochion and Kuturla W of Kymi. Single specimen in the wayside maquis. ABBZ 371; NE slopes of Telethron Mt. above Galatsades and Kamatriades. Scattered in *Quercus frainetto* forest. ABBZ 510. Field obs.: 22, 27.

Sorbus torminalis (L.) Crantz (Fig. 143)

Wayside maquis in the *Pinus halepensis* forest between Krya Monokarya and Mileae. Single shrubby specimens. ABBZ 517; Between Achladion and Straphi. Low *Quercus pubescens* wood by the road from Agia Anna to Papades. ABBZ 558, 559.

Rubiaceae

Putoria calabrica (L. f.) DC. (Fig. 144)

SW slopes of Alokteri Mt. Between Vitala and Metochion (12 km E of Metochion). Edge of maquis on the steep escarp. ABBZ 331; Metochion W of Kymi. Metochiu Bay. Rocky slope above the beach. Common. ABBZ 339. Field obs.: 3, 12, 16, 23, 26, 28, 38, 44, 46, 49, 56, 59.

Ruscaceae

Ruscus aculeatus L. (Fig. 145)

At the foot Skotini Mt. above Metochion. Wayside thickets (remnants of maquis). Ca 500 m. ABBZ 369. Field obs.: 6, 8, 10, 15—17, 22, 24, 30, 33, 40—41, 45—47, 49, 55, 100, 109.

Salicaceae

Populus tremula L. (Fig. 146)

Stropones. Several specimens by the road. Planted? ABBZ 385. Previously this species was recorded from E slopes of Kandilion Mt. (Krause, Ludwig, Seidel 1963).

Salix alba L. (Fig. 147)

Between Krieza and Dystos SEE of Aliverion (nearer Dystos). Small trees by the stream. ABBZ 258; Between Metochion and Kirindos W of Mandilion. Wayside thickets by the stream, ABBZ 477; 3—4 km NE of Krya Monokarya

along the way to Mileae. Valley of Kalas river. Frequently. ABBZ 514. Field obs.: 30, 33—34, 40, 75—76, 78—79, 86, 105, 110.

Salix amplexicaulis Bory (Fig. 148)

4 km NE of Krya Monokarya by the way to Mileae. Frequent in the valley of Kalas river. ABBZ 512, 513, 562. This is the first record of the species for the flora of Euboea.

Salix fragilis L.

Recorded from Pethamenos under *S. australior* Anderss. (Rechinger 1961).

Santalaceae

Osyris alba L. (Fig. 149)

Between Karystos and Buros. Scattered in phrygana. ABBZ 283. Field obs.: 10, 22, 33—34, 68, 75, 94, 108, 111, 114—115.

Smilacaceae

Smilax aspera L. (Fig. 150)

Between Zarakes and Almyropotamos. Dense wayside maquis. ABBZ 263. Field obs.: 2—6, 8—11, 13, 15, 17—19, 23, 25, 27—33, 35—36, 38—39, 41—43, 45—47, 49, 52, 54, 55, 57—59, 63, 68—69, 71—72, 75, 78, 81, 84—87, 94, 96—102, 105—106, 108, 110, 112—114.

Solanaceae

Lycium europaeum L. (Fig. 151)

Between Alexis and Paradision NW of Karystos. Steep slope above the road. ABBZ 302; Between Kamatriades and Istiae, 4 km S of Istiae. Wayside thickets. ABBZ 499. This is a new species for the flora of Euboea.

Lycium chinense Miller

Paralia Kymis 1 km E of Kymi. Wayside thickets by the road to Kymi. ABBZ 327; Kurkuli NE of Lymni. In ruderal places in the village. ABBZ 481. Kanatadika NNW of Istiae. Sandy places not far from the sea shore. ABBZ 518. This is a new species for the flora of Euboea.

Nicotiana glauca Graham

Agios Apostoli NE of Krieza. Foot of the rocky slope not far from the sea shore. Few specimens. ABBZ 322. Field obs.: 32. This is the first record of the species for the flora of Euboea.

Withania somnifera (L.) Dunal

Recorded from Chalkis (Rechinger 1961).

Styracaceae

Styrax officinalis L. (Fig. 152)

Drymona NE of Roviae. Maquis on the edge of *Pinus halepensis* forest. ABBZ 493, 494, 496.

Taxaceae

Taxus baccata L. (Fig. 153)

N slopes of Skotini Mt. above Metochion. Open rocky places below the summit. Single old specimens. Ca 900 m alt. ABBZ 354; Rare in deep shady stream valley ca 1 km NE of Kerasea. ABBZ 539. Field obs.: 26, 47—48.

Thymelaeaceae

Daphne euboica Rech. f. (Fig. 154)

S slopes of Olympos Mt. ca 10 km N of Amaryndos. Stony pastured places. 900—950 m alt. ABBZ 254, 255; N slopes of Skotini Mt. above Metochion. Edge of *Abies cephalonica* forest. 500—600 m. ABBZ 368; NW slopes of Kandilion Mt. Rocky places by the path from Trupion towards the summit not far from the small church. Ca 800 m. ABBZ 460; According to Aldén (Strid 1986) *D. euboica* represents merely a robust and large-leaved form of *D. oleoides* Schreber.

Daphne gnidium L. (Fig. 155)

2—3 km S of Papades. Edge of *Quercus frainetto* scrub by the road to Agia Anna. Rare. ABBZ 233; Wayside maquis between Sterna and Seta, ca 10 km N of Amaryndos. ABBZ 239; Zarakes. Scattered in maquis. ABBZ 261; Near Alexis NW of Karystos. In thickets among cultivated fields. ABBZ 305; Rocky coast with maquis NW of Daphni, 4 km NW of Politika. ABBZ 416. Field obs.: 13, 16, 18, 19—20, 23, 24—27, 29—30, 33, 37, 41—42, 44, 46, 48, 50, 53, 55, 58, 69, 71, 77—78, 91.

Daphne jasminnea Sibth. et Smith

Recorded from Dirphys Mt. (Rechinger 1961).

Daphne laureola L. (Fig. 156)

N slopes of Skotini Mt. above Metochion. By the path to the top in the *Abies cephalonica* forest. Rare. Ca 700 m. ABBZ 348.

Daphne oleoides Schreber (Fig. 157)

N slope of Skotini Mt. above Metochion. Clearings in the *Abies cephalonica* forest. Among rocks. Ca 600 m. ABBZ 344; Ibidem. Rocky places below the summit 900—1000 m. ABBZ 351, 362; E slopes of Dirphys Mt. The route from the hospice to the summit. N of Steni Dirphys, W of Stropones. Very common in open eroded places, 1300 m. ABBZ 375; Dirphys Mt. On the summit, 1743 m. ABBZ 399; Ca 5 km N of Stavros, N of Psachna. Open *Pinus halepensis* forest by the way to Agia Sophia. Very common among rocks. ABBZ 420, 421, 422. NW slopes of Kandilion Mt. The path from Trupion towards the summit. Rocky open places below the top. ABBZ 471. Field obs.: 47.

Thymelaea hirsuta L. (Fig. 158)

On ruderal places in the town Chalkis. ABBZ obs.

Thymelaea tartonraira (L.) All. subsp. *argentea* (Sm.) Holmboe (Fig. 159)

Between Prokopion and Nea Pagondas. Edge of *Pinus halepensis* forest

above the road. ABBZ 237; S slopes of Olympos Mt. ca 15 km N of Amaryndos. Open *Pinus halepensis* forest. Ca 850 m. ABBZ 251; 4 km S of Kapsala. Stony hillside above the road to Karystos. Ca 400 m. ABBZ 274, 275; Between Politika and Daphni. Edge of *Pinus halepensis* forest; ABBZ 404; SE foot of Xiron Mt. Edge of *Pinus halepensis* forest by the way from Kurkuli towards the summit. ABBZ 489. Field obs.: 28, 32, 38, 50, 52—53.

Tiliaceae

Tilia tomentosa Moench.

Recorded from Kymi (Rechinger 1961).

Ulmaceae

Celtis australis L. (Fig. 160)

Between Sarakinikon and Vlachia. N foot of the mountain 1228 m. Deep shady stream valley. Large trees. ABBZ 428; 2 km E of Agiokambos, 12 km W of Istiae. Wayside thickets. Single trees. ABBZ 498. Field obs.: 14, 41.

Ulmus glabra Hudson (Fig. 161)

N slopes of Skotini Mt. above Metochion. Single specimen in wayside thickets. Ca 500 m alt. ABBZ 364. This is the first record of the species for the flora of Euboea.

Ulmus laevis Pallas

Recorded from Pyxaria Mt., but this record is considered by Rechinger (1961) to be doubtful.

Ulmus minor Miller (Fig. 162)

subsp. *minor* — Drymona NE of Roviae. Few specimens among fields. ABBZ 495.

subsp. *canescens* (Melville) Browicz et Ziel. — Pilion SE of Mandulion. Wayside thickets along the road to Vlachia. ABBZ 438; Between Metochion and Kirindos W of Mandulion. Wayside thickets by the stream. ABBZ 474; Between Pilion and Prokopion. Wayside thickets. ABBZ 452; Wayside thickets 2—3 km N of Istiae along the road to Asiminion. ABBZ 527, 528. Field obs.: 10, 16, 22, 32—37, 40, 43. This species previously recorded from Euboea by Krause, Ludwig and Seidel (1963) is represented on the island both by type subspecies and subsp. *canescens*.

Umbelliferae

Bupleurum fruticosum L. (Fig. 163)

Deep rocky stream valley 1 km NW of Daphni, 4 km NW of Politika. ABBZ 410; 3 km S of Stavros, NNW of Psachna. Very common in the *Pinus halepensis* forest above the road. ABBZ 419.

Verbenaceae
Vitex agnus-castus L. (Fig. 164)

Akros Mandili 2 km SE of Buros. Sandy seashore. ABBZ 284; Melissa Beach W of Kymi. Sandy damp places near the coast. ABBZ 373; Midway between Pilion and Prokopion. Shady stream valley in the *Pinus halepensis* forest. ABBZ 440. Field obs.: 1—8, 10—19, 25, 30, 31, 34—41, 43, 45, 48—49, 51—52, 54—56, 61—63, 68, 73—74, 76, 78—87, 90, 94—95, 97, 102—104, 108, 110, 114.

Vitaceae

Vitis sylvestris Gmelin (Fig. 165)

Field obs.: 6.

SUMMARY

In 1986, from August 21st to September 13th field studies were conducted on the tree and shrub flora of Euboea, the second largest island in Greece. The main purpose of the studies was to determine the full list of woody plants occurring here in the wild state, and to prepare point maps of distribution for each species.

Basing on own herbarium collections and field observations, as well as on herbarium materials from several European Herbaria and literature data, it was established that on Euboea in the natural state there grow 179 taxa of trees and shrubs (*Gymnospermae* 11, *Angiospermae* 168). The authors have included here species they have seen themselves as well as species they did not find, but cited in the literature and particularly in the work of Rechinger (1961) „Die Flora von Euboea”. Compared to the latter flora we have found 30 new species of trees and shrubs for island, namely: *Acer platanoides*, *Arthroclemum fruticosum*, *A. macrostachyum*, *A. perenne*, *Amelanchier chelmea*, *A. ovalis* subsp. *ovalis*, *Amygdalus webbii*, *Cistus parviflorus*, *Elaeagnus angustifolia*, *Halimione portulacoides*, *Lavatera bryoniifolia*, *Lycium chinense*, *L. europaeum*, *Nicotiana glauca*, *Periploca graeca* var. *graeca*, *P. graeca* var. *vestita*, *Prunus spinosa* subsp. *dasyphylla*, *Quercus macrolepis*, *Quercus petraea* subsp. *petraea*, *Q. petraea* subsp. *iberica*, *Rhamnus oleoides*, *Rosa arvensis*, *Rubus hirtus*, *Salix amplicaulis*, *Salvia pomifera*, *Sambucus nigra*, *Scabiosa hymettia*, *Satureja parnassica*, *Thymbra spicata* and *Ulmus glabra*.

Richest in terms of the number of species were the families *Rosaceae* — 26, *Leguminosae* — 19, *Labiatae* — 14, *Fagaceae* — 11 and the richest genera were *Quercus* — 10, *Rosa* — 7 and *Daphne* — 5. Among the newly discovered species mention needs to be made of *Amelanchier chelmea* and *Scabiosa hymettia* in view of their rarity and geographical distribution, and also of *Periploca graeca* var. *vestita*. This latter taxon is the same time new for the whole of Greece. Two other very interesting species are the endemics of Euboea, *Daphne euboica* and *Quercus euboica*, however the systematic position of these species is not

sufficiently clear. Species reported from Euboea but which we were unable to recover include: *Adenocarpus complicatus*, *Amelanchier ovalis* subsp. *cretica*, *Chamaecytisus supinus*, *Clematis viticella*, *Convolvulus oleifolius*, *Daphne jasminea*, *Ephedra maior* subsp. *procera*, *Fraxinus excelsior*, *Fumana pinatzzii*, *Juniperus excelsa*, *Ligustrum vulgare*, *Micromeria myrtifolia*, *M. nervosa*, *Podocytisus caramanicus*, *Ptilostemon gnaphaloides*, *Quercus cerris*, *Q. virgiliana*, *Salix fragilis* and *Ulmus laevis*.

Basing on the data listed above point maps of distribution were prepared for 154 species. The list of literature quoted after the paper deals with the flora and vegetation of Euboea as published after the publication of Rechinger „Die Flora von Euboea”. The herbarium materials collected on the island (359 nos.) are stored in the Herbarium of the Institute of Dendrology of the Polish Academy of Sciences and in the Goulandris Natural History Museum in Kifissia near Athens.

Accepted for publication 1987.

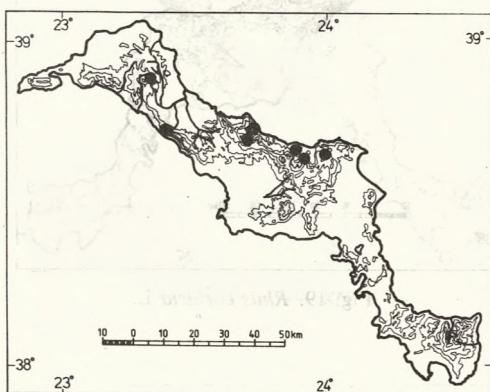


Fig. 12. *Acer monspessulanum* L.

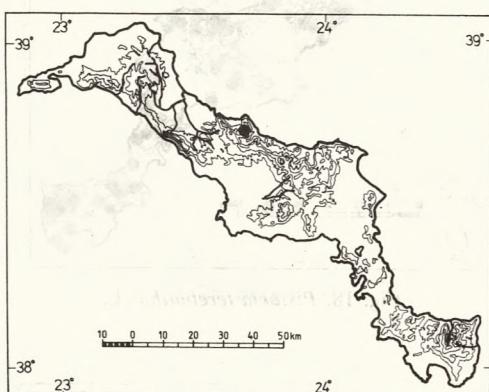


Fig. 13. *Acer platanoides* L.

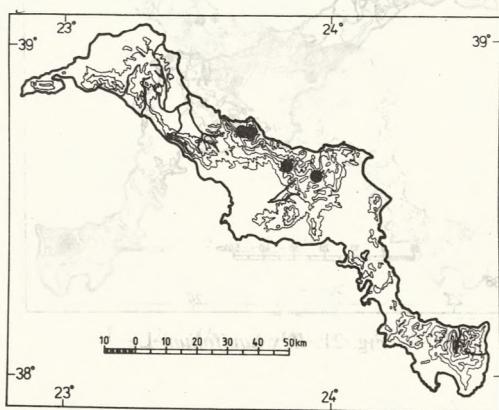


Fig. 14. *Acer regiae-amaliae* Orph. ex Boiss.

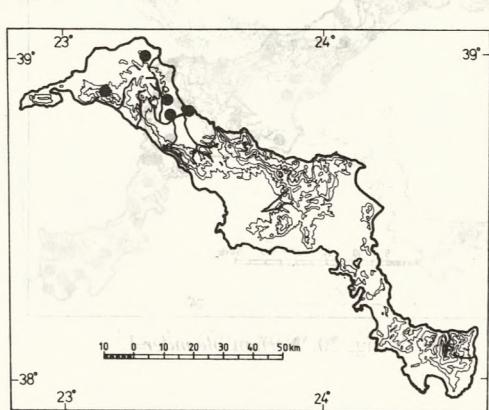


Fig. 15. *Acer sempervirens* L.

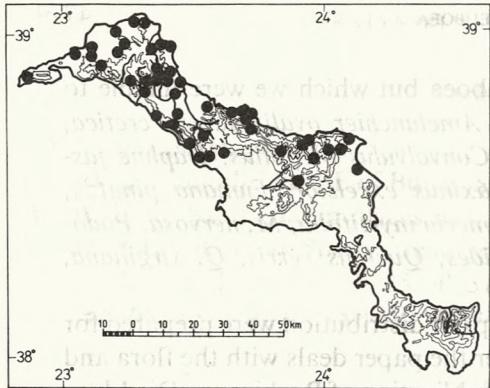


Fig. 16. *Cotinus coggygria* Scop.

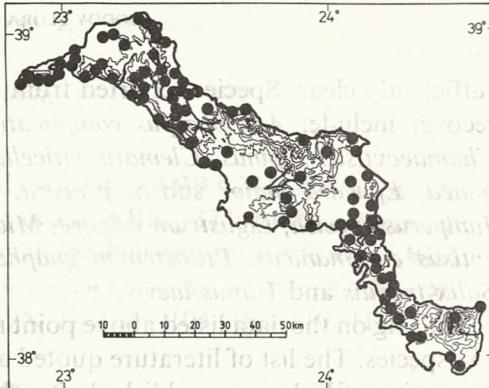


Fig. 17. *Pistacia lentiscus* L.

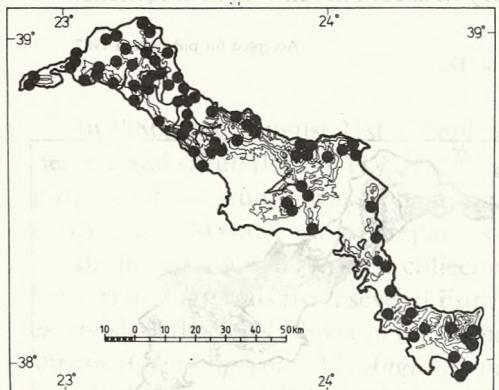


Fig. 18. *Pistacia terebinthus* L.

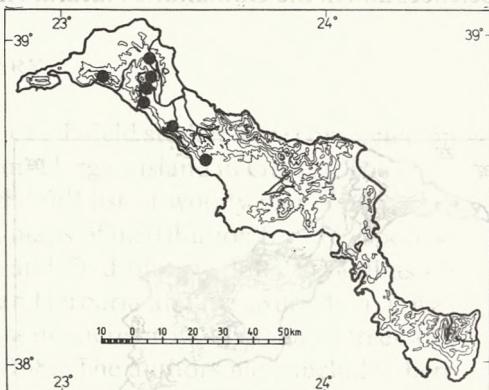


Fig. 19. *Rhus coriaria* L.



Fig. 20. *Nerium oleander* L.

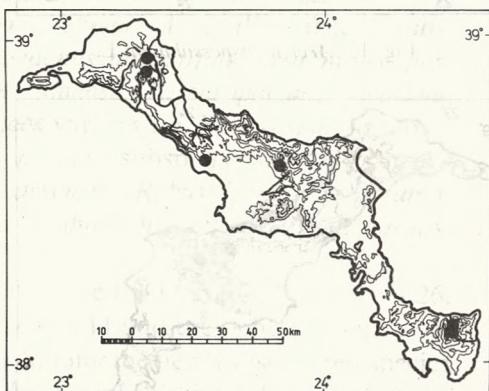


Fig. 21. *Ilex aquifolium* L.

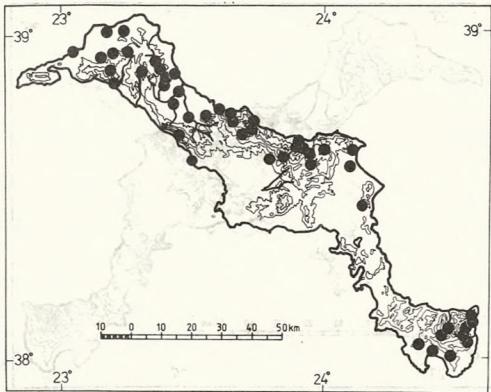


Fig. 22. *Hedera helix* L.

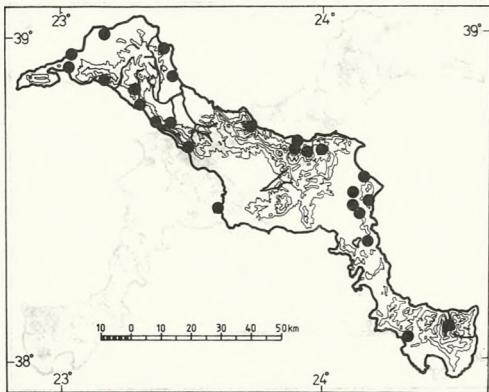


Fig. 23. *Cionura erecta* (L.) Griseb.

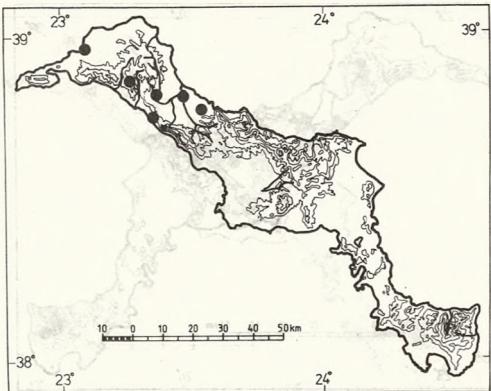


Fig. 24. *Periploca graeca* L.

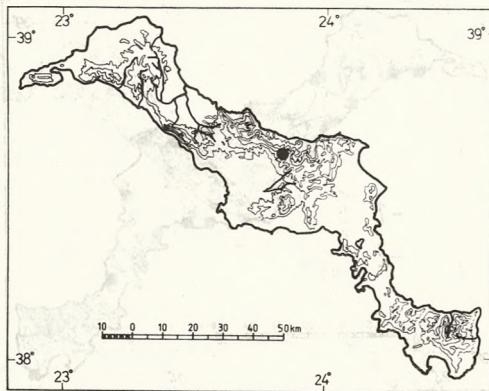


Fig. 25. *Berberis cretica* L.

Subsp. cretica & *subsp. mediterranea* –
intermediate

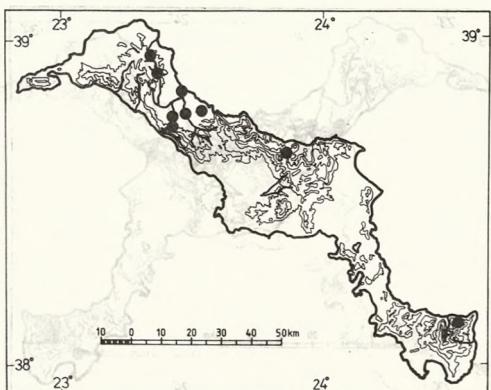


Fig. 26. *Alnus glutinosa* (L.) Gaertner

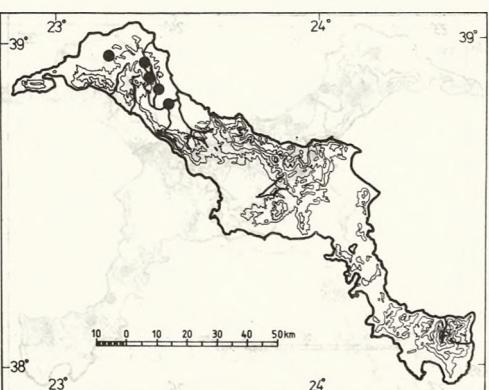


Fig. 27. *Carpinus orientalis* Miller

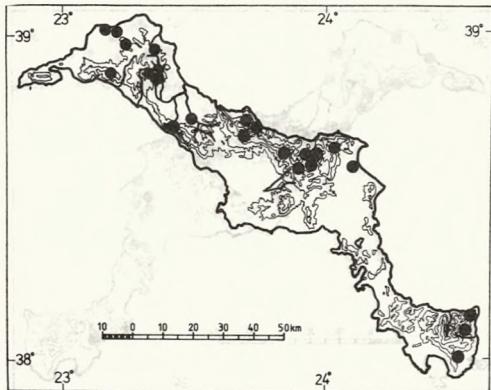


Fig. 28. *Ostrya carpinifolia* Scop.

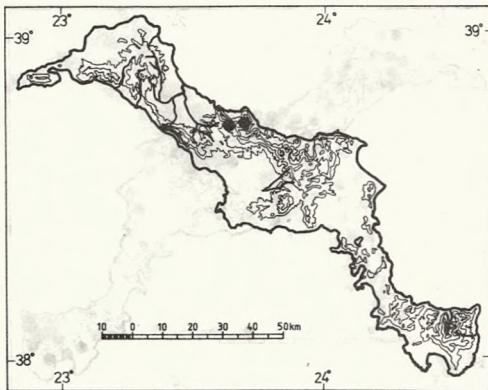


Fig. 29. *Buxus sempervirens* L.

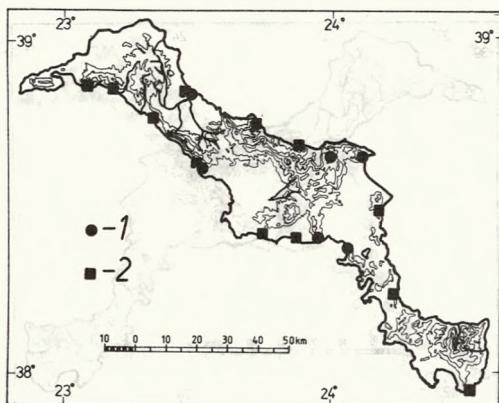


Fig. 30. *Capparis spinosa* L.
1 — subsp. *spinosa*, 2 — subsp. *orientalis*
(Duhamel) Jafri

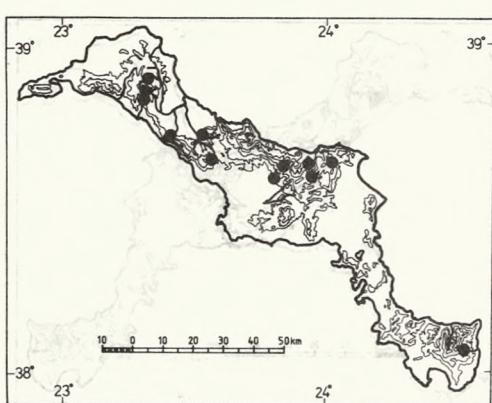


Fig. 31. *Lonicera etrusca* Santi

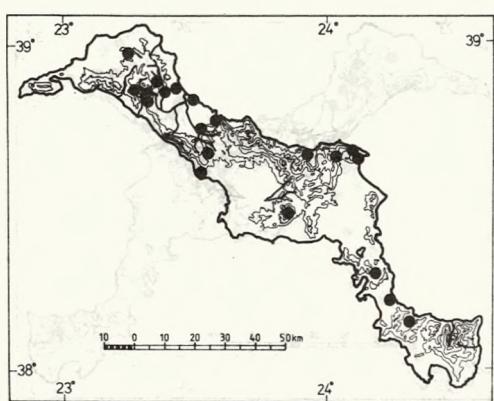


Fig. 32. *Lonicera implexa* Aiton

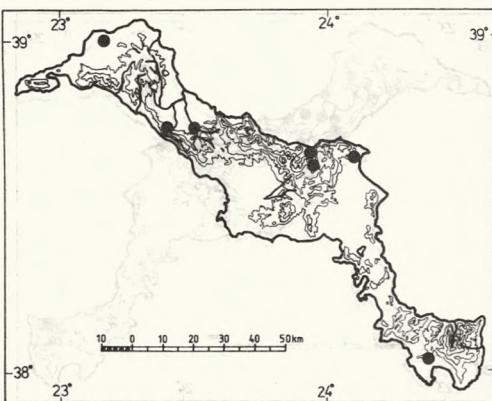


Fig. 33. *Sambucus nigra* L.

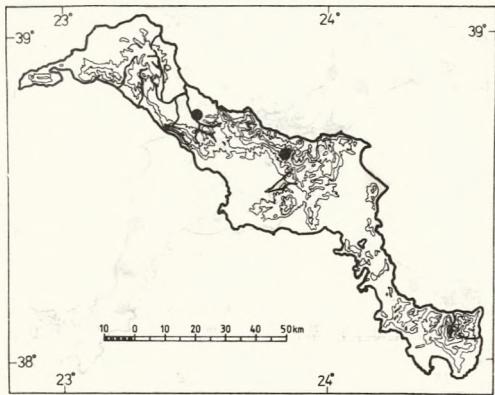


Fig. 34. *Evonymus europaeus* L.

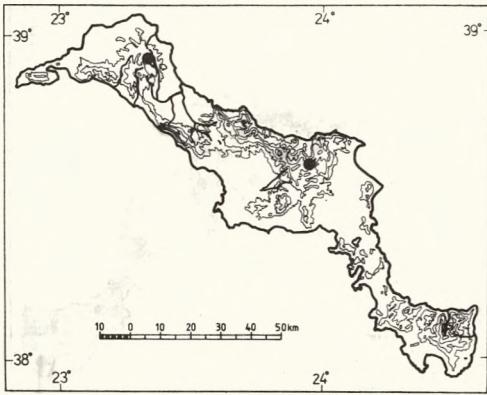


Fig. 35. *Evonymus latifolius* (L.) Miller

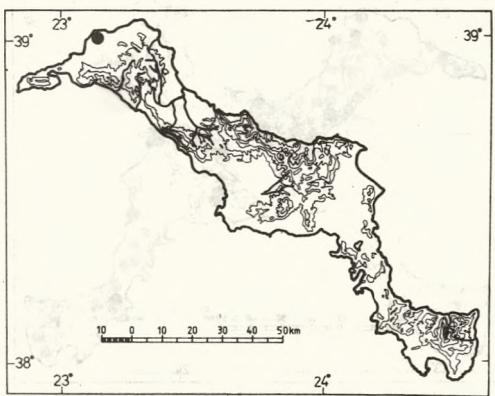


Fig. 36. *Arthrocnemum fruticosum* (L.) Moq.

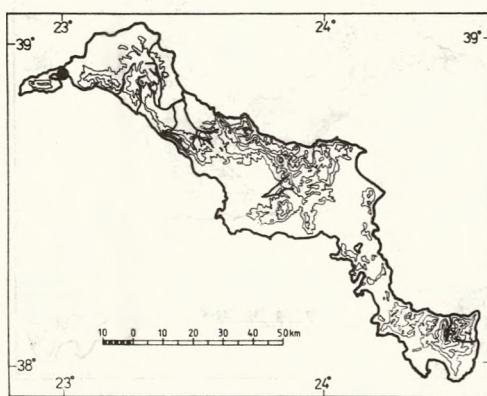


Fig. 37. *Arthrocnemum macrostachyum* (Moric.)
Moris et Delponte

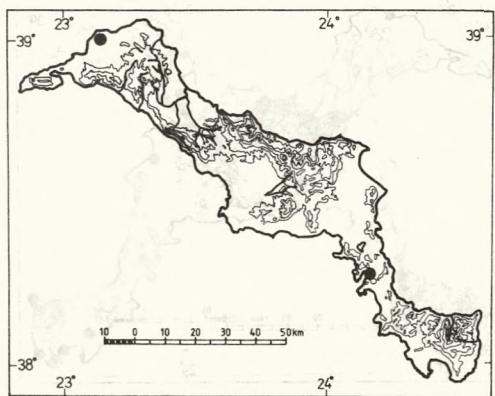


Fig. 38. *Arthrocnemum perenne* (Miller) Moss

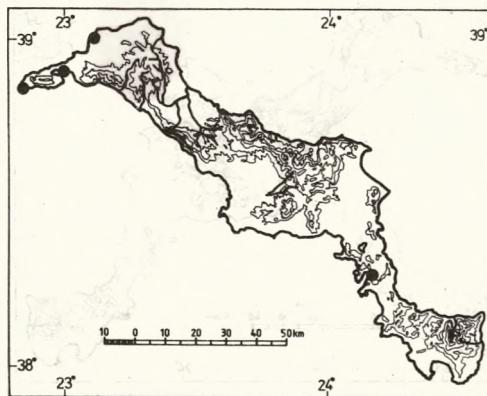


Fig. 39. *Halimione portulacoides* (L.) Allen

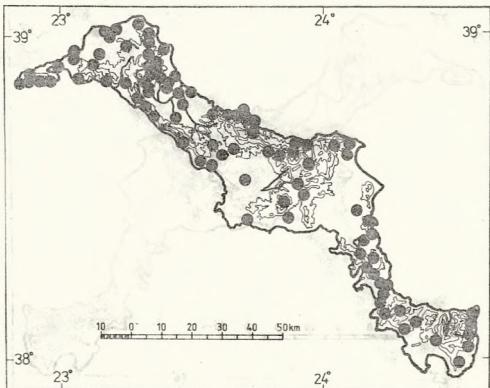


Fig. 40. *Cistus incanus* L.

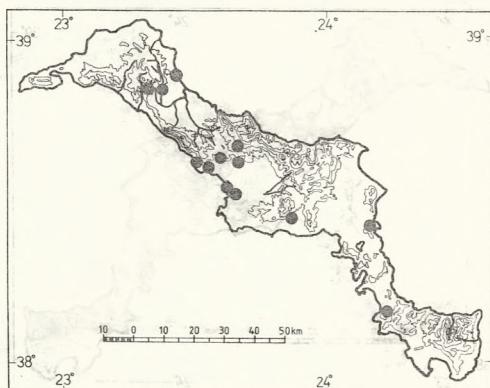


Fig. 41. *Cistus monspeliensis* L.

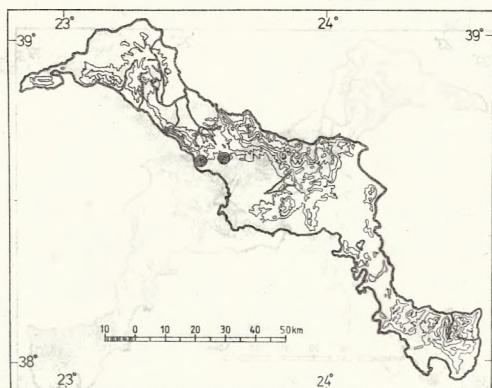


Fig. 42. *Cistus parviflorus* Lam.

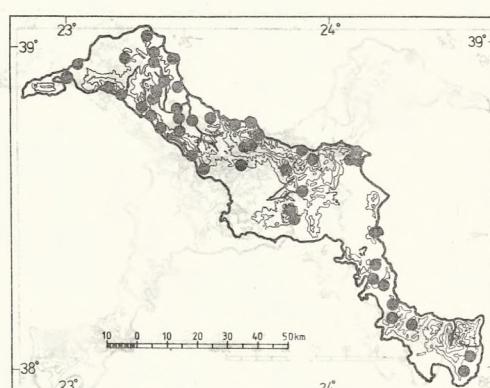


Fig. 43. *Cistus salviifolius* L.



Fig. 44. *Helianthemum lavandulifolium* Miller



Fig. 45. *Centaurea spinosa* L.

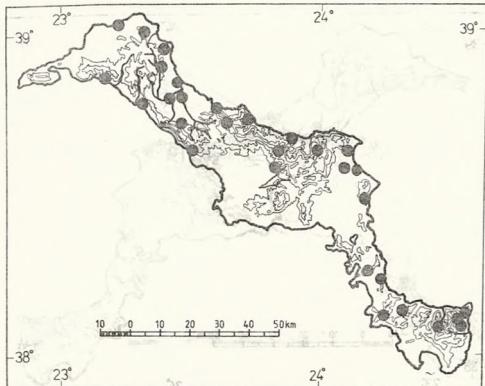


Fig. 46. *Ptilostemon chamaepeuce* (L.) Less.

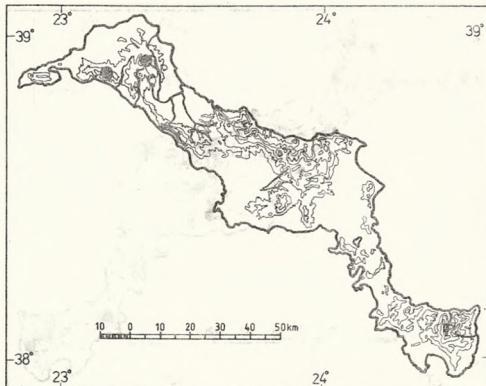


Fig. 47. *Cornus sanguinea* L.

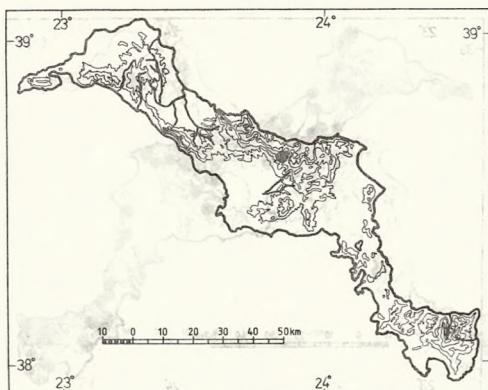


Fig. 48. *Juniperus foetidissima* Willd.

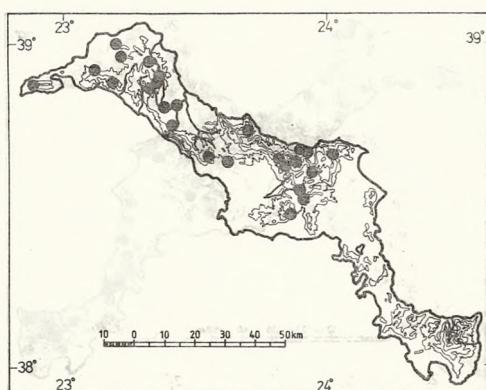


Fig. 49. *Juniperus oxycedrus* L.

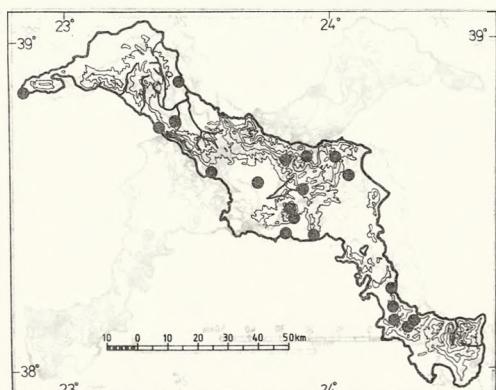


Fig. 50. *Juniperus phoenicea* L.

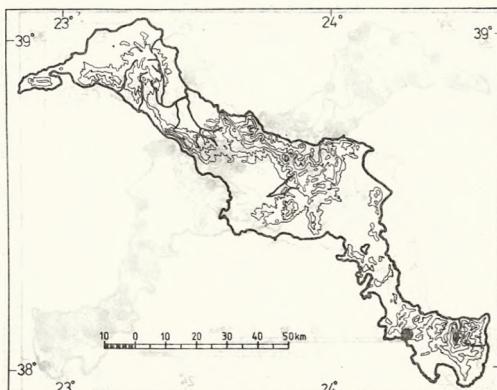


Fig. 51. *Scabiosa hymettia* Boiss. et Spruner

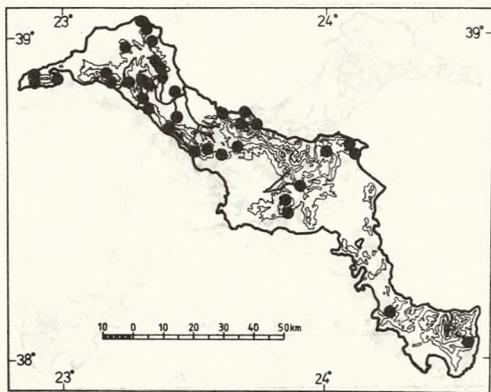


Fig. 52. *Arbutus andrachne* L.

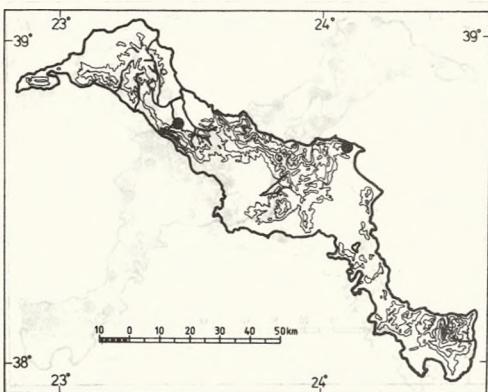


Fig. 53. *Arbutus × andrachnoides* Link

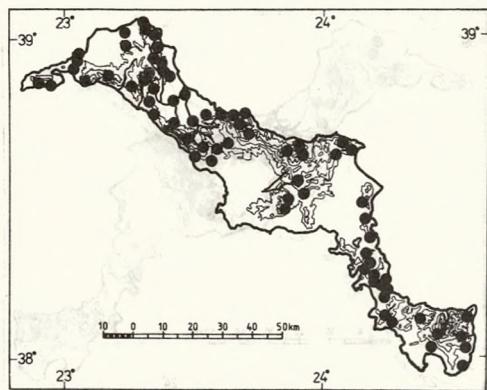


Fig. 54. *Arbutus unedo* L.

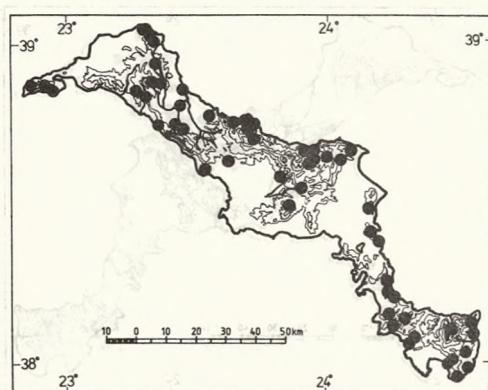


Fig. 55. *Erica arborea* L.

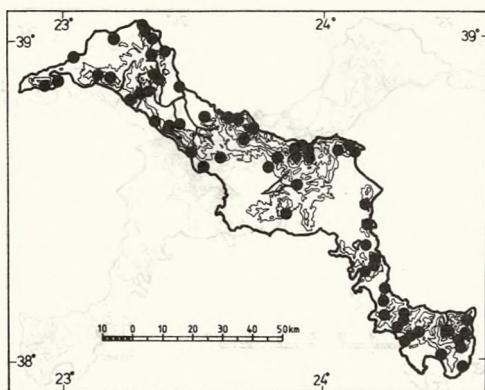


Fig. 56. *Erica manipuliflora* Salisb.

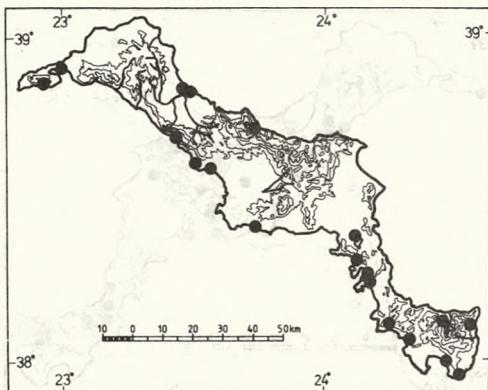


Fig. 57. *Ephedra campylopda* C. Meyer

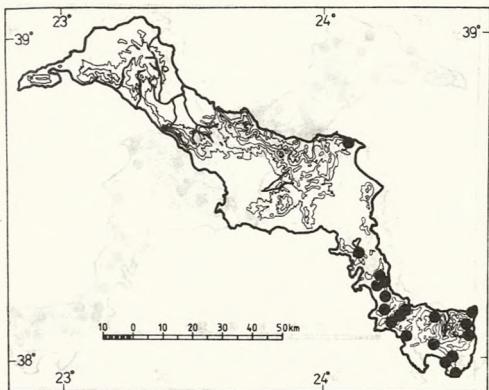


Fig. 58. *Euphorbia acanthothamnos* Heldr. et Sart.

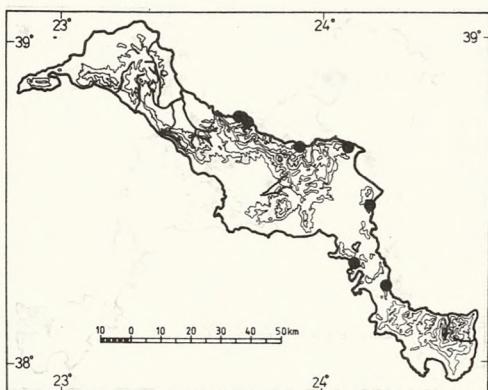


Fig. 59. *Euphorbia dendroides* L.

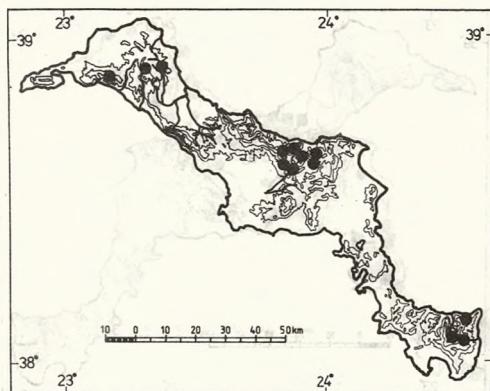


Fig. 60. *Castanea sativa* Miller

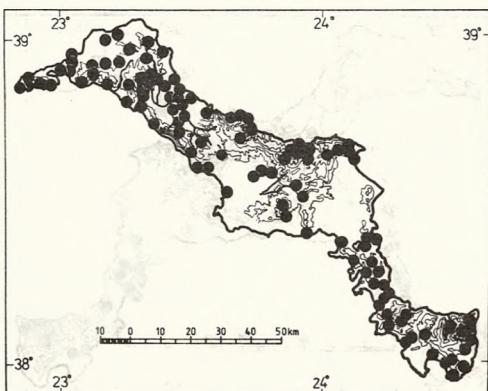


Fig. 61. *Quercus coccifera* L.



Fig. 62. *Quercus dalechampii* Ten.

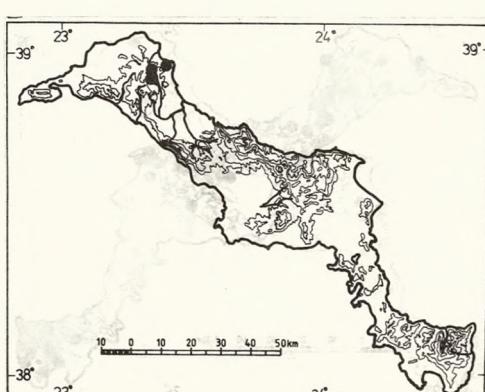


Fig. 63. *Quercus euboica* Papajoanou

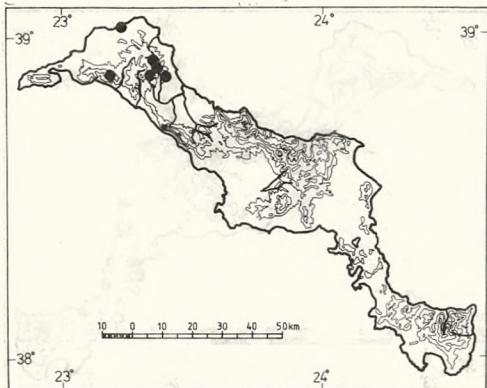


Fig. 64. *Quercus frainetto* Ten.

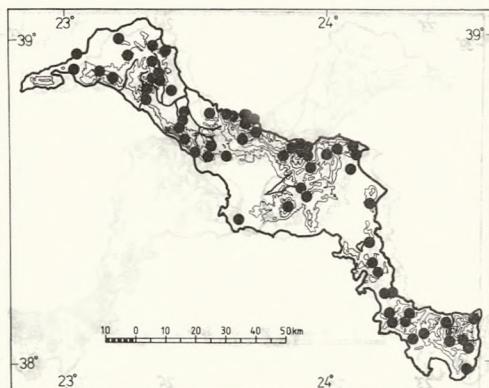


Fig. 65. *Quercus ilex* L.



Fig. 66. *Quercus macrolepis* Kotschy



Fig. 67. *Quercus petraea* (Mattuschka) Liebl.
1 — subsp. *petraea*, 2 — subsp. *iberica* (Steven ex
Bieb.) Krassiln.

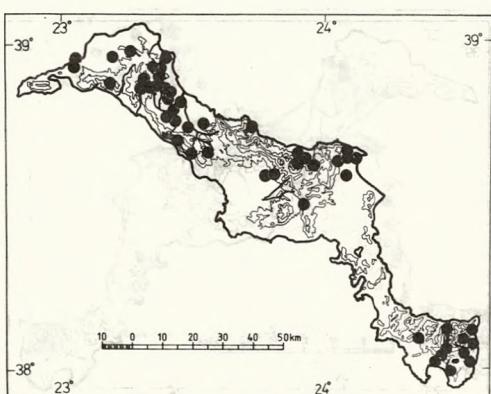


Fig. 68. *Quercus pubescens* Willd.

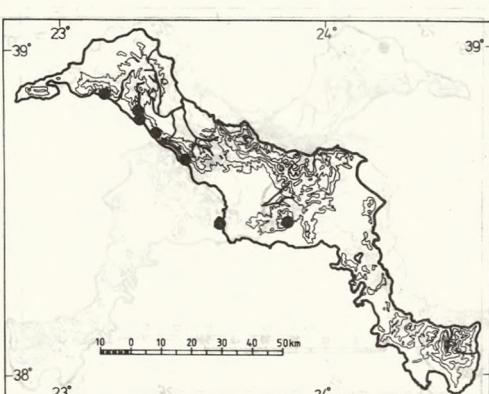


Fig. 69. *Globularia alypum* L.

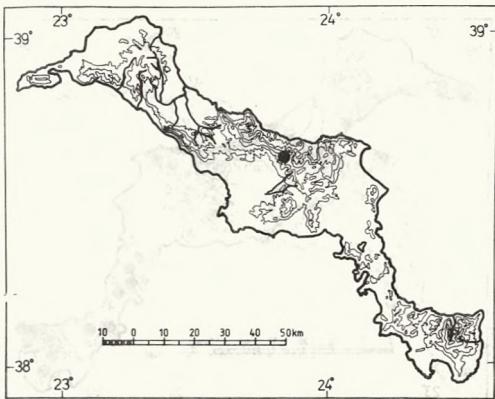


Fig. 70. *Ribes orientale* Desf.

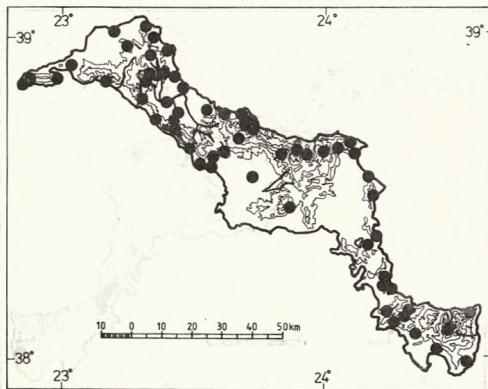


Fig. 71. *Hypericum empetrifolium* Willd.

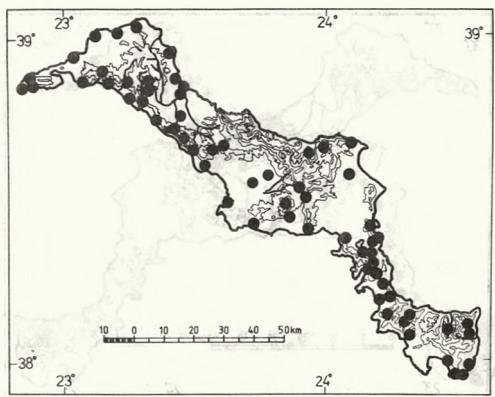


Fig. 72. *Coridothymus capitatus* (L.) Reichb. f.

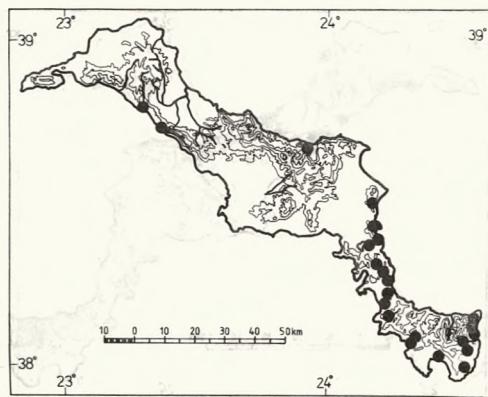


Fig. 73. *Lavandula stoechas* L.

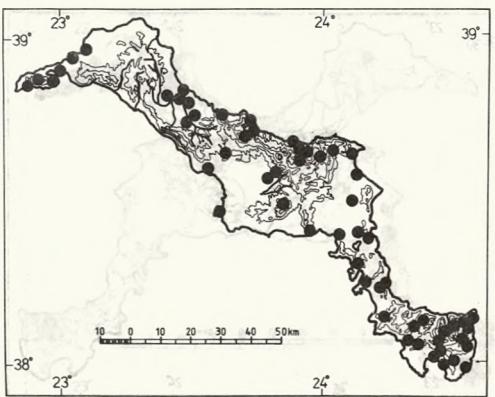


Fig. 74. *Phlomis fruticosa* L.

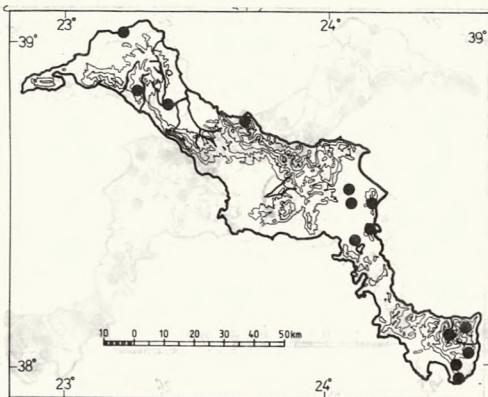


Fig. 75. *Prasium majus* L.

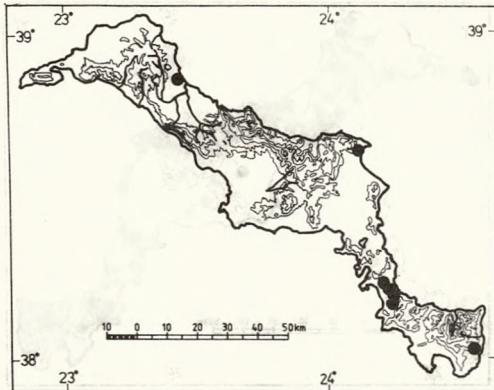


Fig. 76. *Rosmarinus officinalis* L.

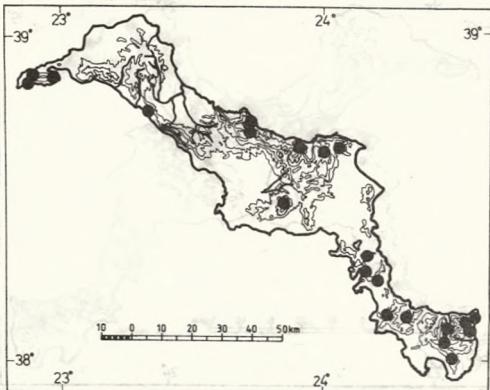


Fig. 77. *Salvia fruticosa* Miller



Fig. 78. *Salvia pomifera* L.



Fig. 79. *Satureja parnassica* Heldr. et Sart.
ex Boiss.

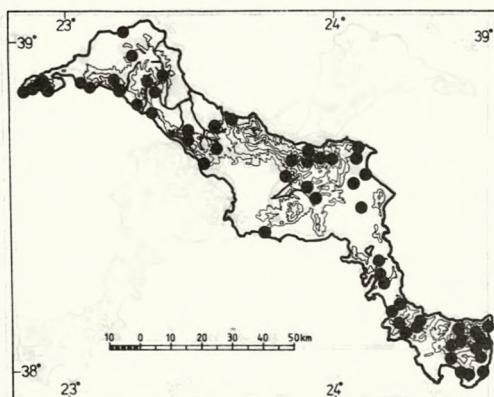


Fig. 80. *Satureja thymbra* L.

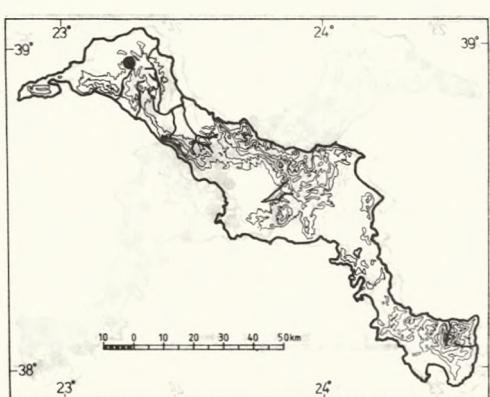


Fig. 81. *Thymbra spicata* L.

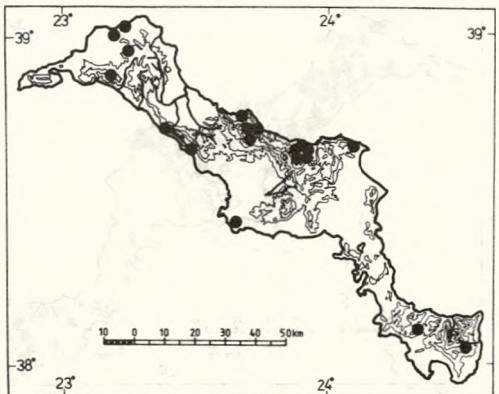


Fig. 82. *Laurus nobilis* L.

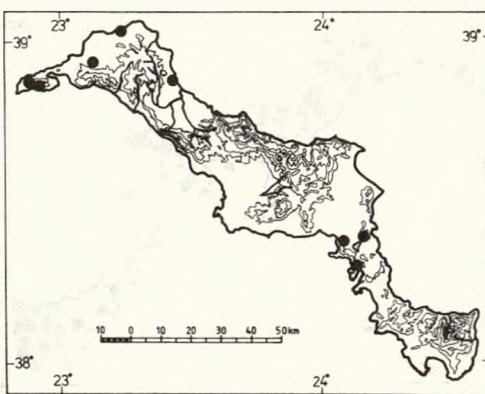


Fig. 83. *Anagyris foetida* L.

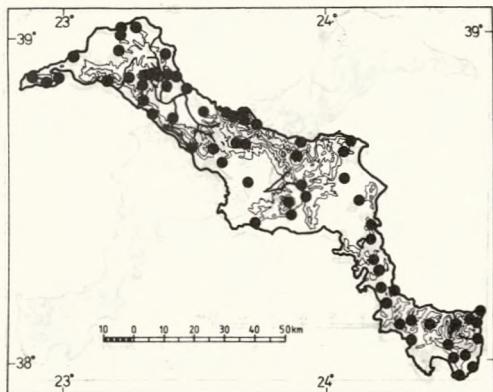


Fig. 84. *Anthyllis hermanniae* L.

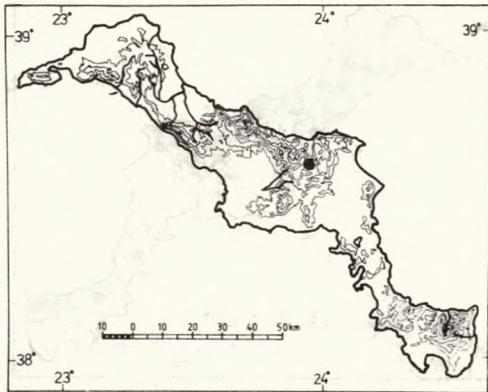


Fig. 85. *Astragalus angustifolius* Lam.



Fig. 86. *Calicotome villosa* (Poiret) Link



Fig. 87. *Ceratonia siliqua* L.

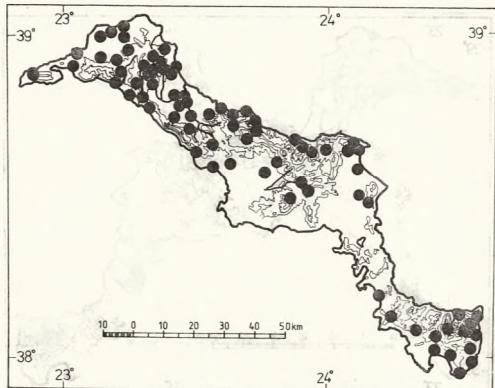


Fig. 88. *Cercis siliquastrum* L.

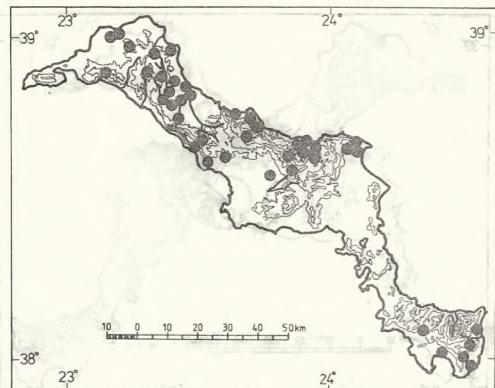


Fig. 89. *Colutea arborescens* L.

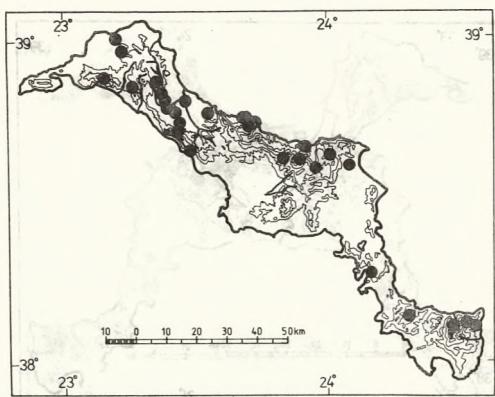


Fig. 90. *Coronilla emerus* L. subsp. *emeroidea*
(Boiss. et Spruner) Hayek

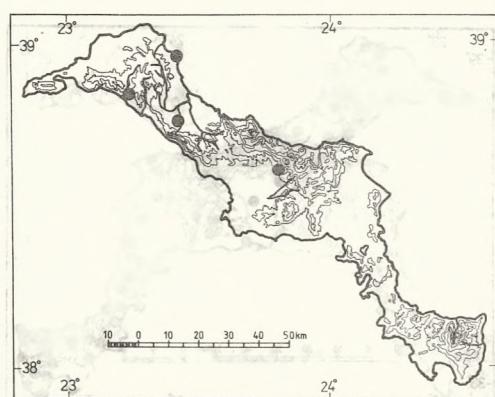


Fig. 91. *Coronilla velutina* L. subsp. *glauca* (L.)
Batand.

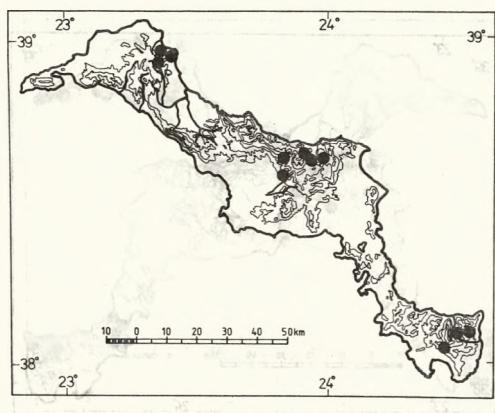


Fig. 92. *Cytisus villosus* Pourret

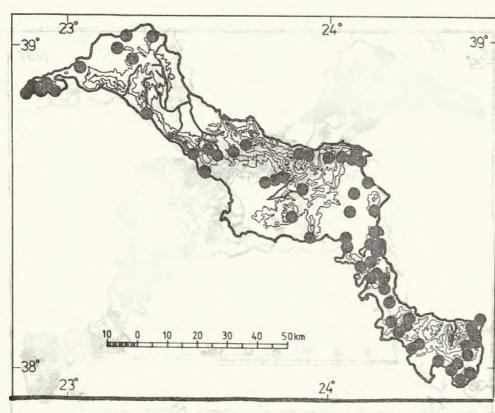


Fig. 93. *Genista acanthoclada* DC.

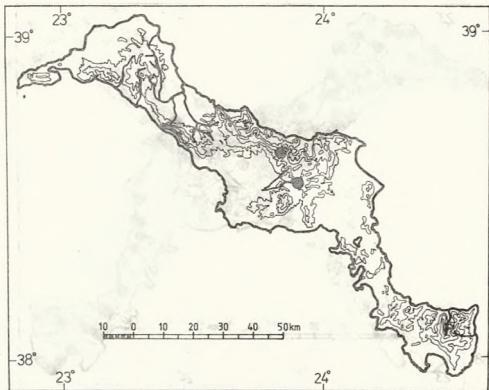


Fig. 94. *Genista milli* Heldr. ex Boiss.

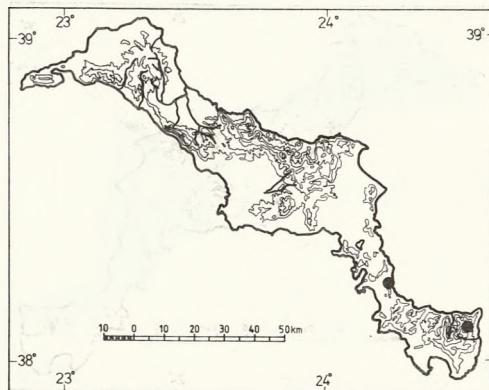


Fig. 95. *Medicago arborea* L.

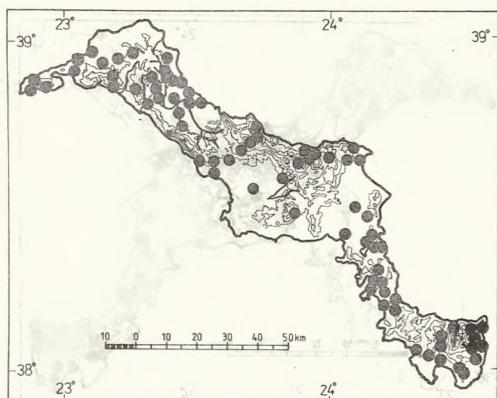


Fig. 96. *Spartium junceum* (L.)

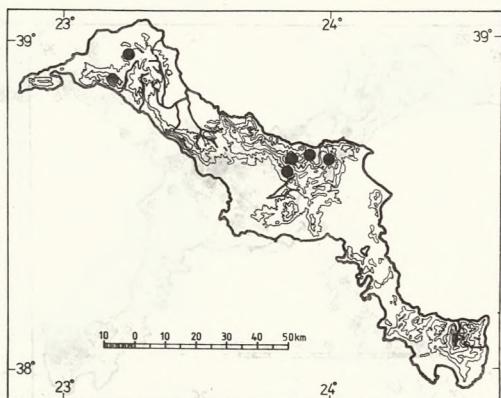


Fig. 97. *Teline monspessulana* (L.) K. Koch

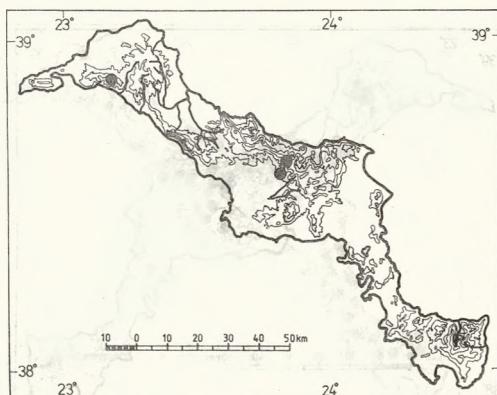


Fig. 98. *Loranthus europaeus* Jacq.

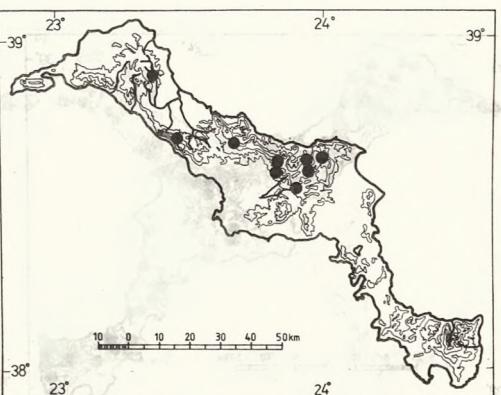


Fig. 99. *Viscum album* L. subsp. *abietis* (Wiesb.)
Abrrom.

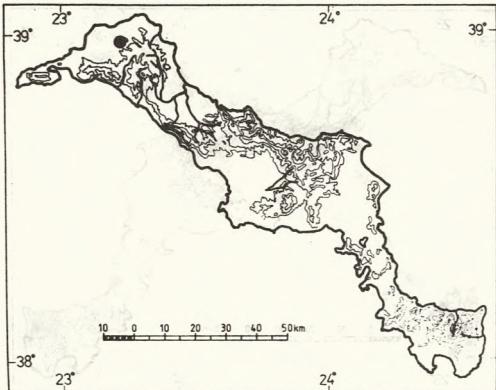


Fig. 100. *Lavatera bryoniifolia* Miller

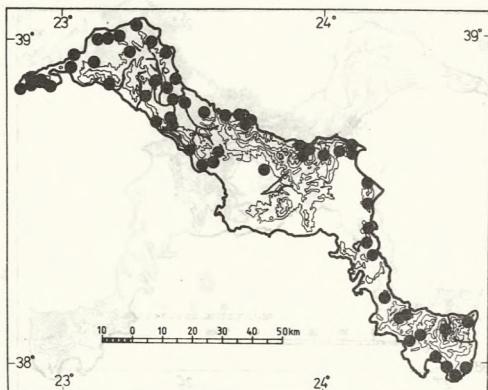


Fig. 101. *Myrtus communis* L.

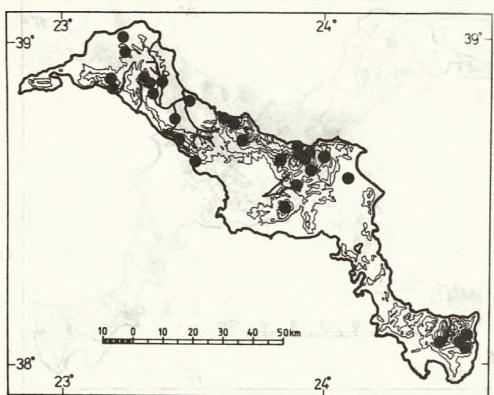


Fig. 102. *Fraxinus ornus* L.

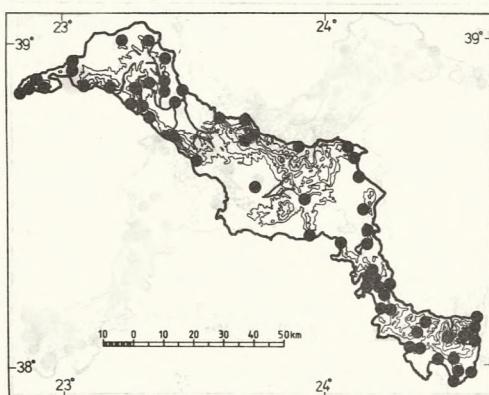


Fig. 103. *Olea europaea* L. var. *sylvestris* Brot.

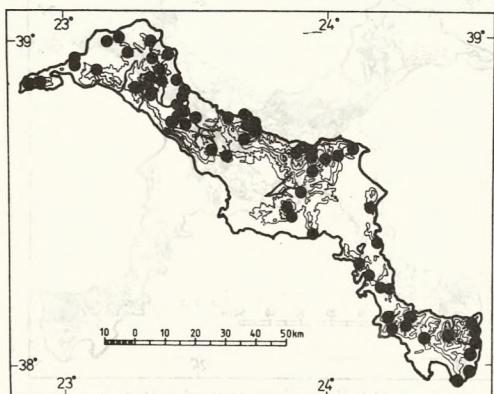


Fig. 104. *Phillyrea latifolia* L.

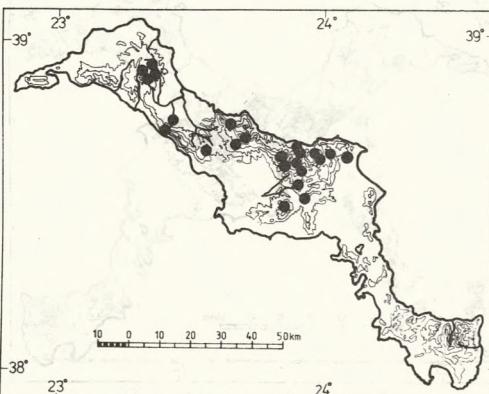


Fig. 105. *Abies cephalonica* Loudon

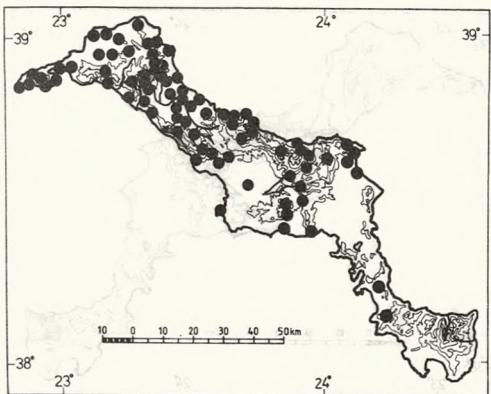


Fig. 106. *Pinus halepensis* Miller

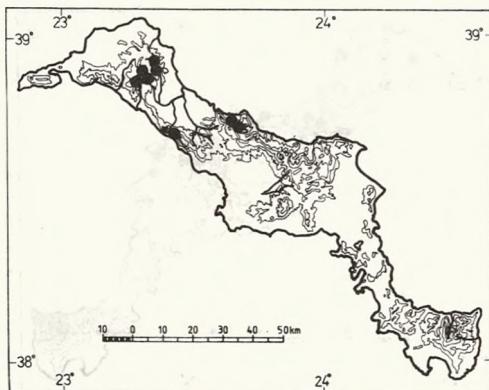


Fig. 107. *Pinus nigra* Arnold subsp. *pallasiana* (Lamb.) Holmboe

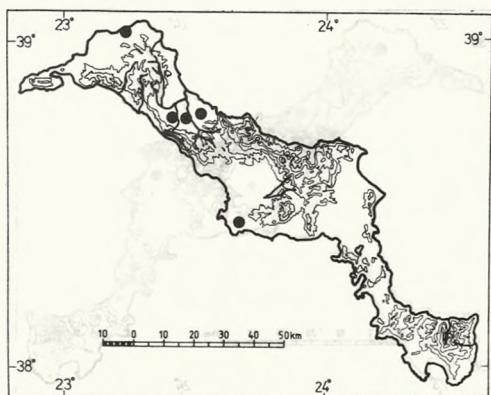


Fig. 108. *Pinus pinea*.

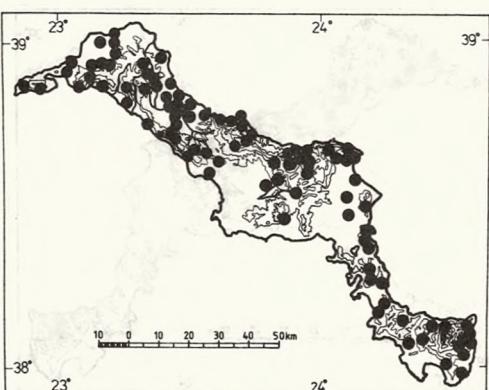


Fig. 109. *Platanus orientalis* L.

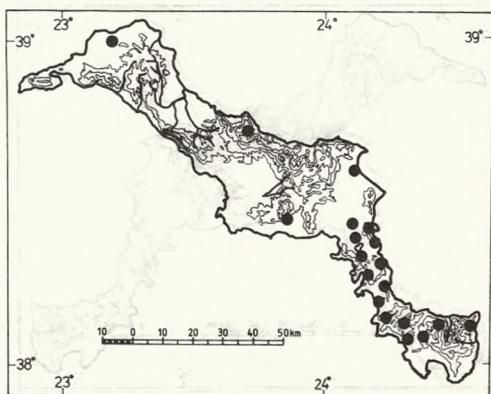


Fig. 110. *Clematis cirrhosa* L.

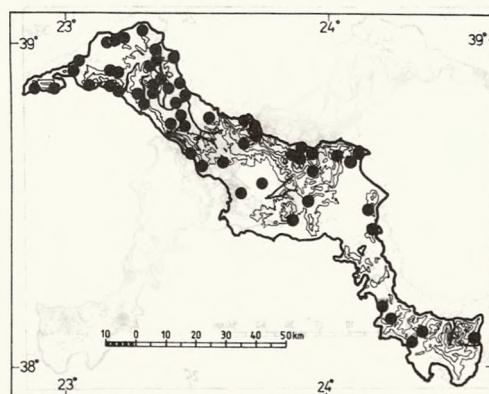


Fig. 111. *Clematis flammula* L.

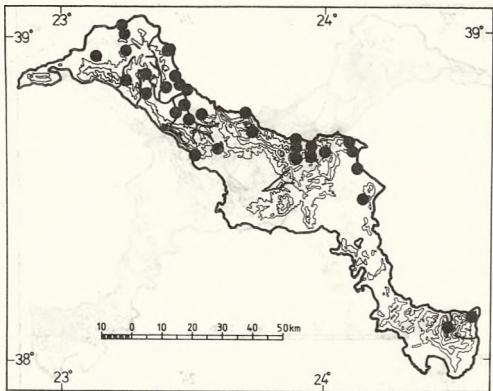


Fig. 112. *Clematis vitalba* L.

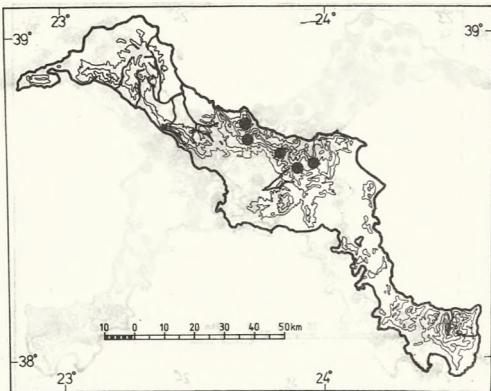


Fig. 113. *Frangula rupestris* (Scop.) Schur

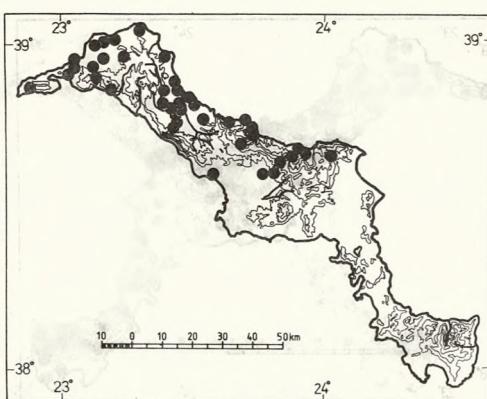


Fig. 114. *Paliurus spina-christi* Miller

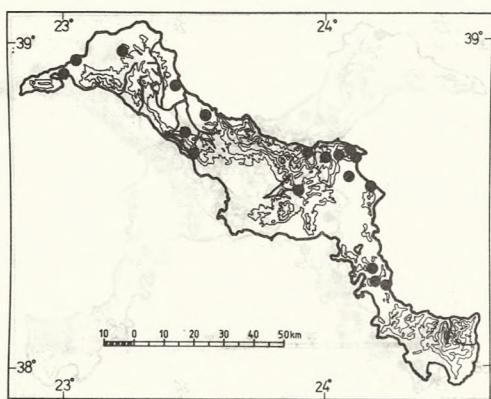


Fig. 115. *Rhamnus alaternus* L.

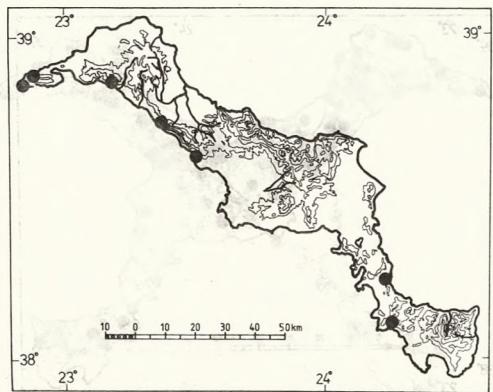


Fig. 116. *Rhamnus oleoides* L.

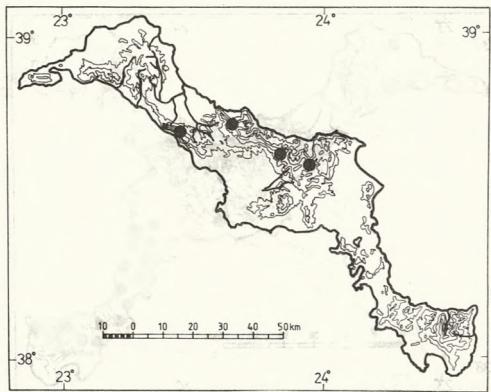


Fig. 117. *Rhamnus prunifolius* Sibth. et Smith

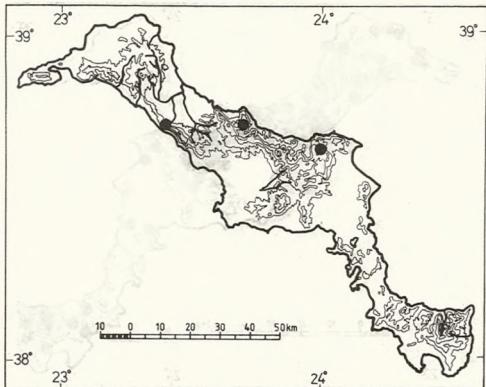


Fig. 118. *Amelanchier chelmea* (Halácsy) Browicz

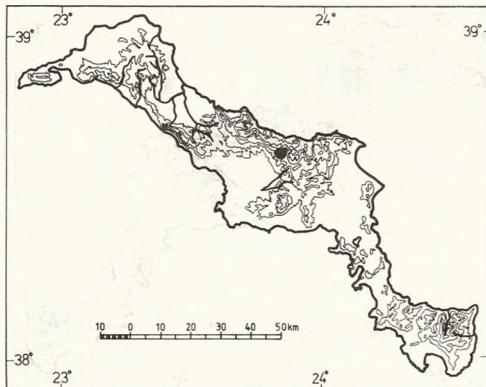


Fig. 119. *Amelanchier ovalis* Medicus subsp. *ovalis*

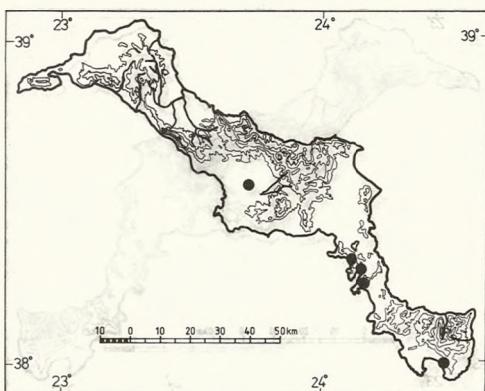


Fig. 120. *Amygdalus webbii* Spach

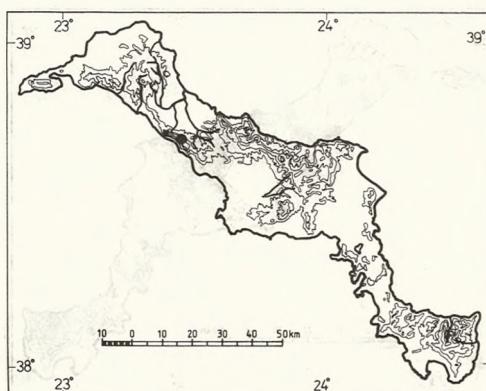


Fig. 121. *Cerasus mahaleb* (L.) Miller



Fig. 122. *Cercis prostrata* (Labill.) Ser.

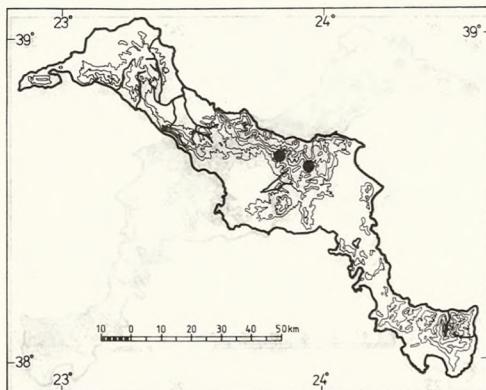


Fig. 123. *Cotoneaster nebrodensis* (Guss.) K. Koch

możec (and 2)

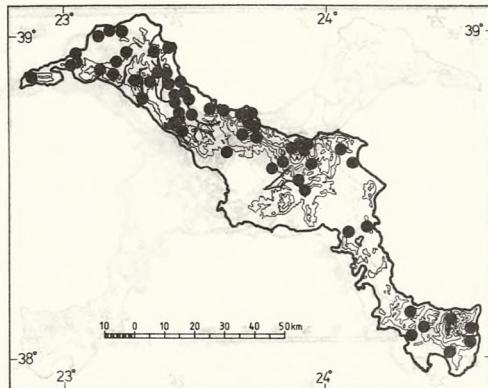
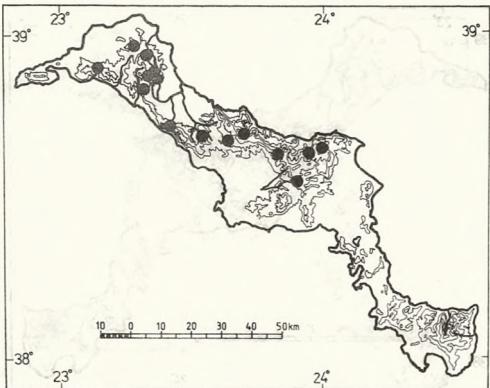


Fig. 124. *Crataegus heldreichii* Boiss.

Fig. 125. *Crataegus monogyna* Jacq.

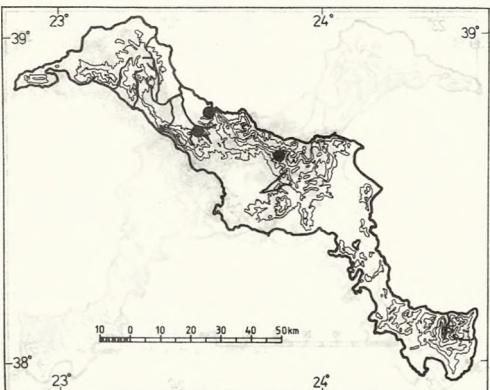


Fig. 126. *Malus dasypylla* Borkh.

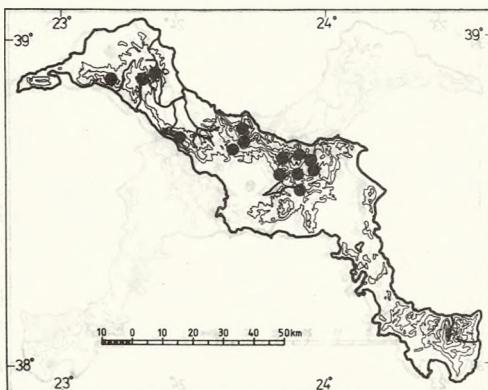


Fig. 127. *Prunus cocomilia* Ten.

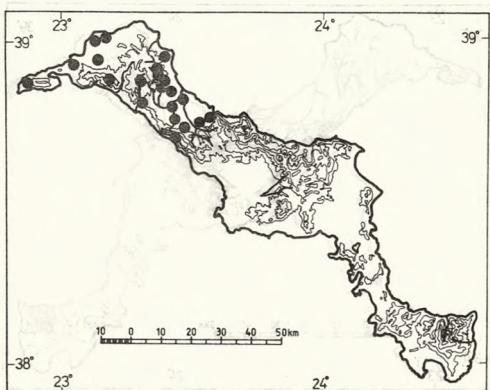


Fig. 128. *Prunus spinosa* L. subsp. *dasypylla* (Schur) Domin

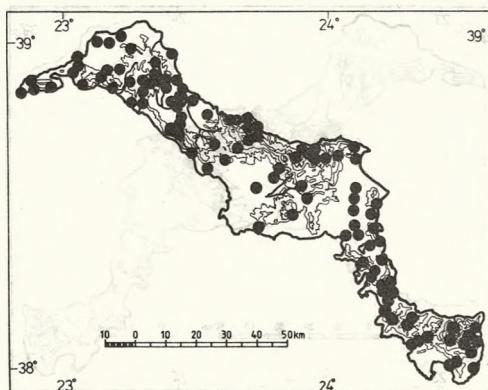


Fig. 129. *Pyrus spinosa* Forsskål

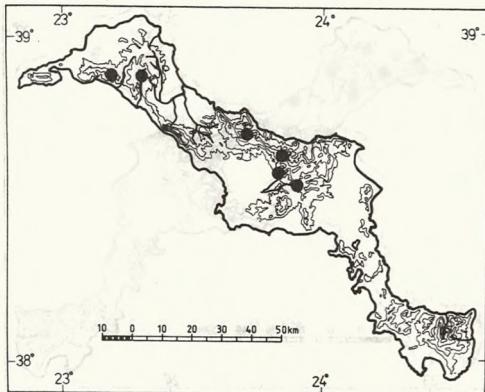


Fig. 130. *Rosa agrestis* Savi

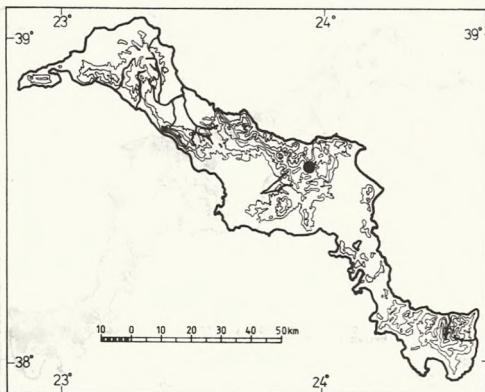


Fig. 131. *Rosa arvensis* Hudson

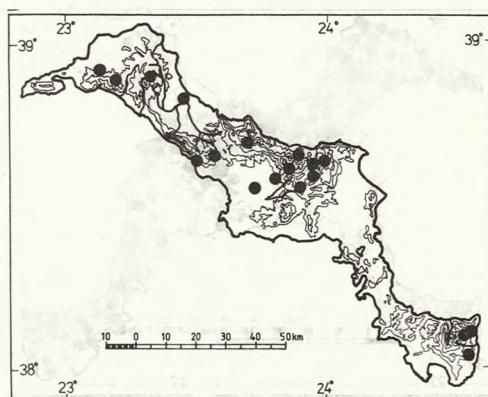


Fig. 132. *Rosa canina* L.

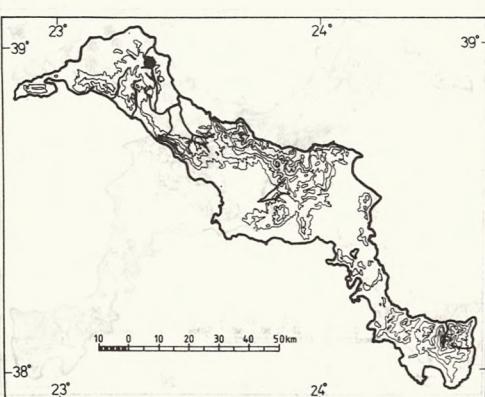


Fig. 133. *Rosa gallica* L.

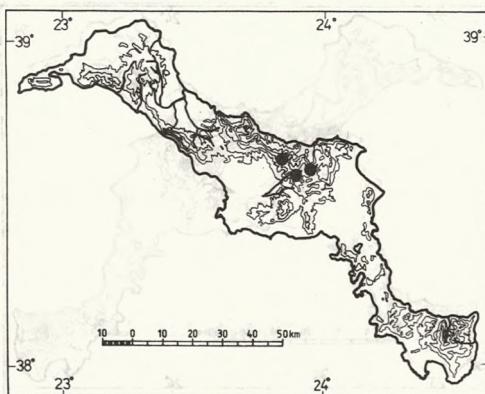


Fig. 134. *Rosa heckeliana* Tratt.

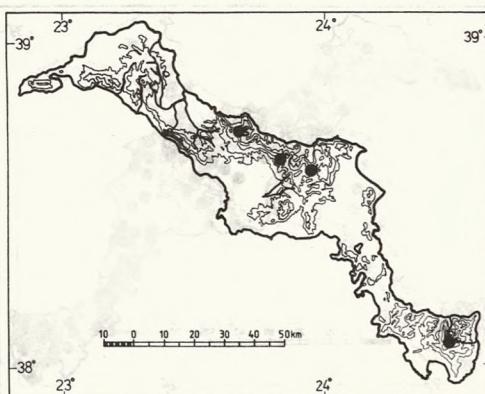


Fig. 135. *Rosa pulverulenta* M. Bieb.

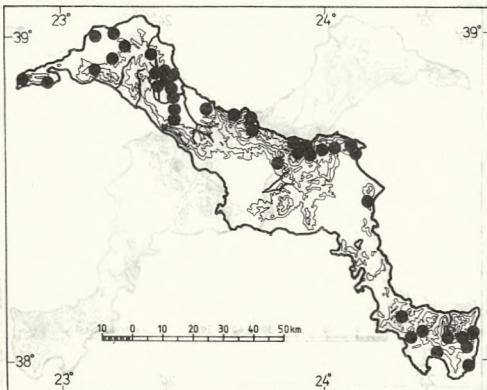


Fig. 136. *Rosa sempervirens* L.

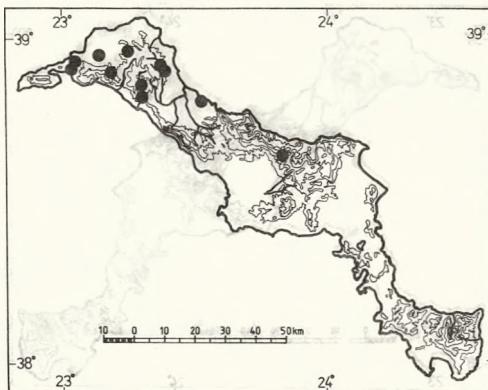


Fig. 137. *Rubus canescens* DC.

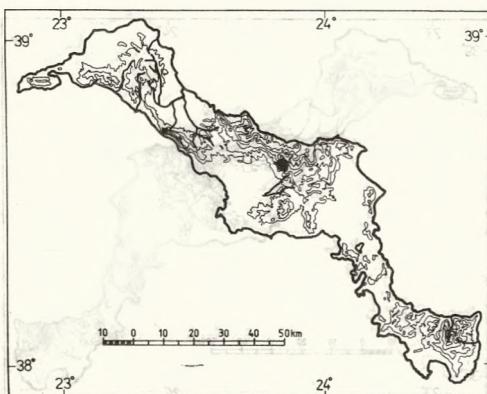


Fig. 138. *Rubus hirtus* Waldst. et Kit.

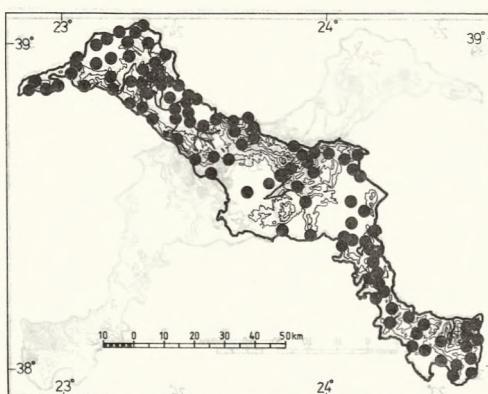


Fig. 139. *Rubus ulmifolius* Schott

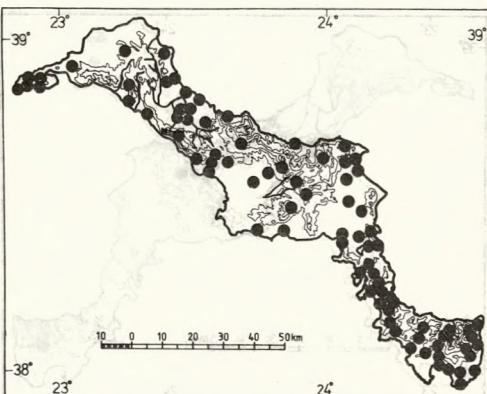


Fig. 140. *Sarcopoterium spinosum* (L.) Spach

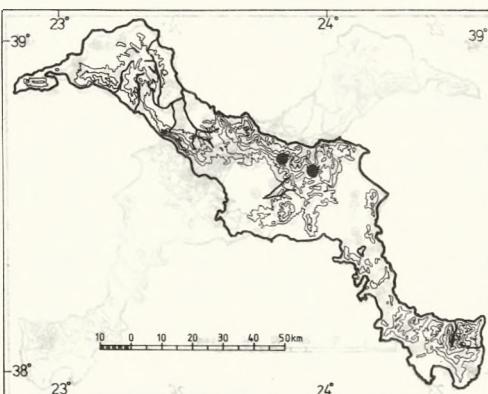


Fig. 141. *Sorbus aria* (L.) Crantz subsp. *aria*

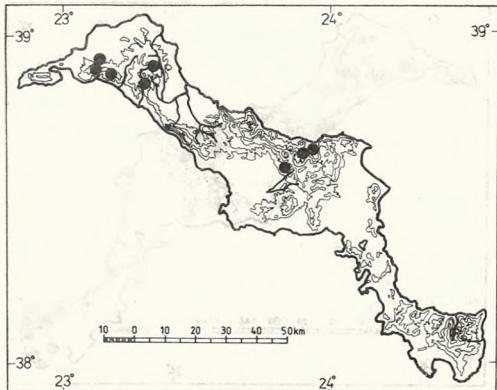


Fig. 142. *Sorbus domestica* L.

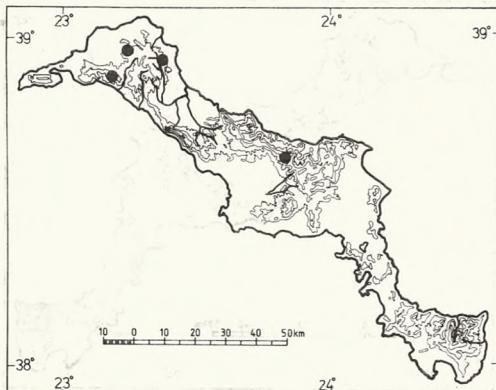


Fig. 143. *Sorbus torminalis* (L.) Crantz



Fig. 144. *Putoria calabrica* (L.f.) DC.

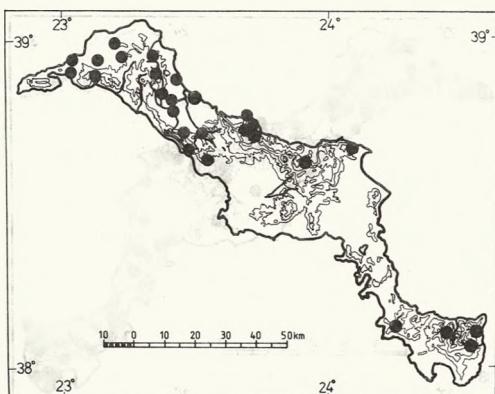


Fig. 145. *Ruscus aculeatus* L.

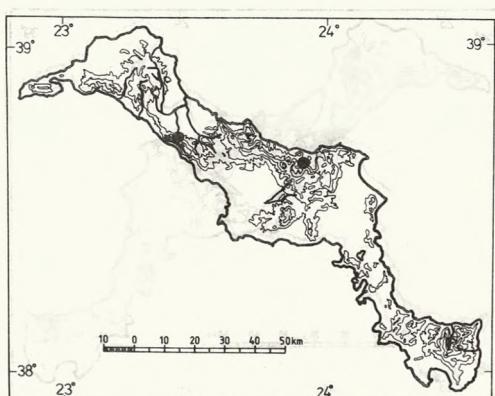


Fig. 146. *Populus tremula* L.



Fig. 147. *Salix alba* L.

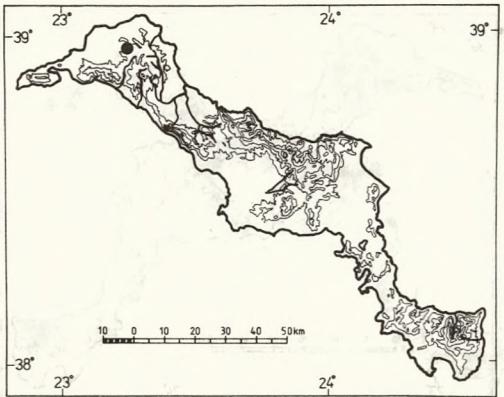


Fig. 148. *Salix amplexicaulis* Bory

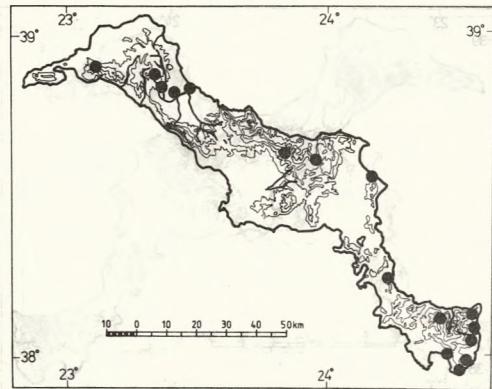


Fig. 149. *Osyris alba* L.

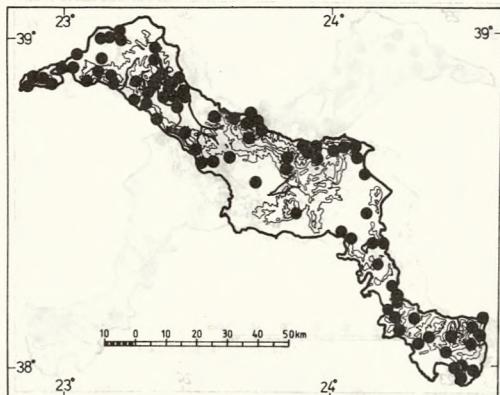


Fig. 150. *Smilax aspera* L.

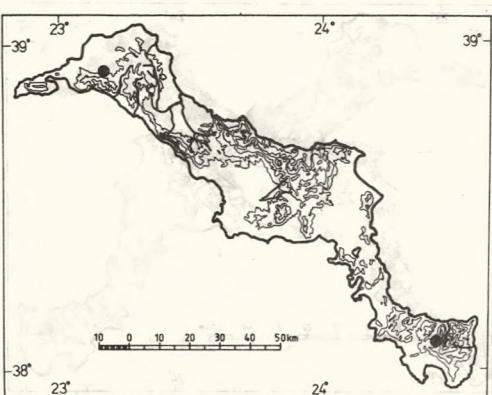


Fig. 151. *Lycium europaeum* L.

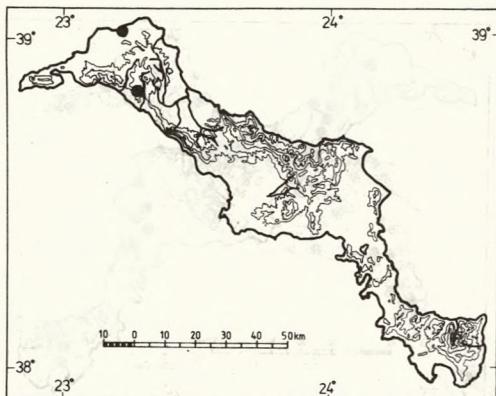


Fig. 152. *Styrax officinalis* L.

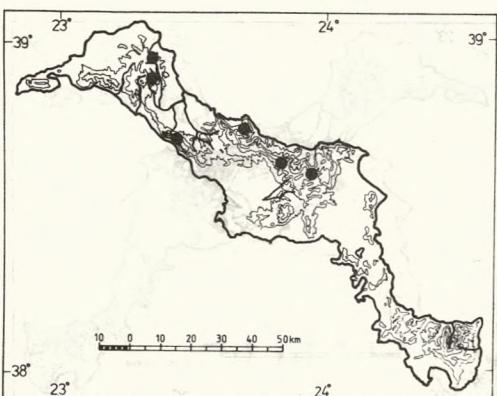


Fig. 153. *Taxus baccata* L.

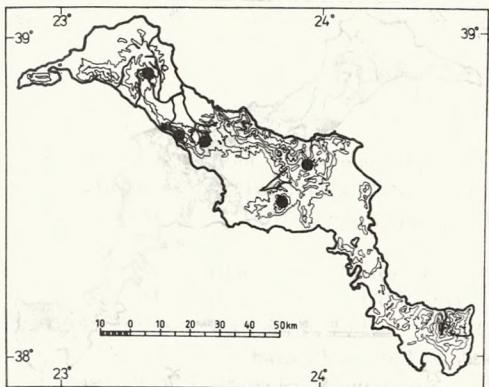


Fig. 154. *Daphne euboica* Rech. f.

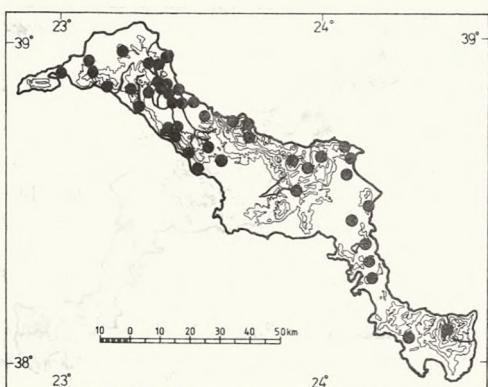


Fig. 155. *Daphne gnidium* L.

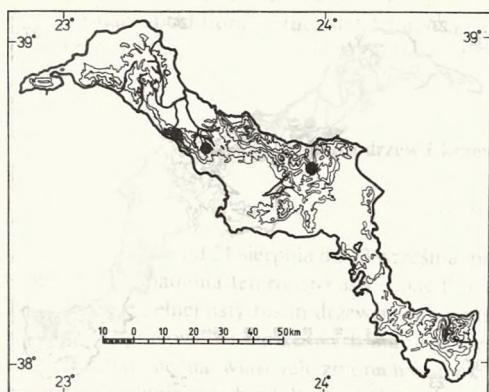


Fig. 156. *Daphne laureola* L.

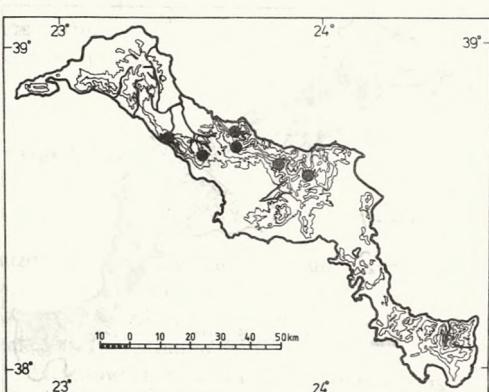


Fig. 157. *Daphne oleoides* Schreber

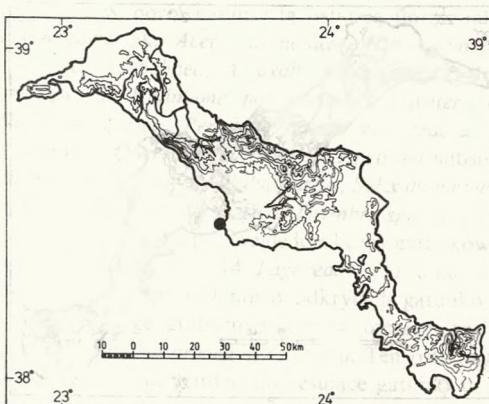


Fig. 158. *Thymelaea hirsuta* L.

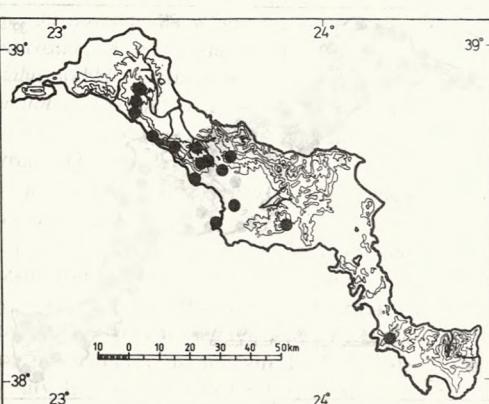


Fig. 159. *Thymelaea tartonraira* (L.) All.



Fig. 160. *Celtis australis* L.

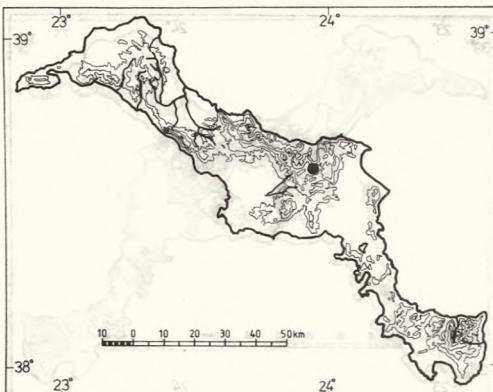


Fig. 161. *Ulmus glabra* Hudson

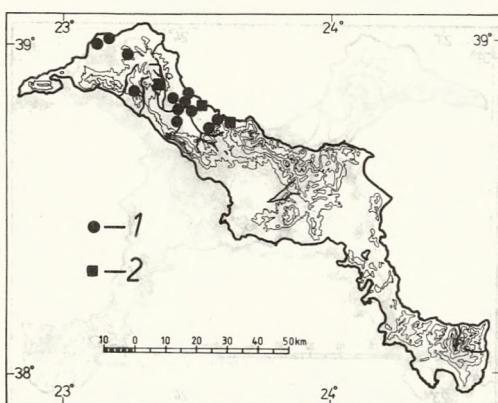


Fig. 162. *Ulmus minor* Miller

1 — subsp. *minor*, 2 — subsp. *canescens* (Melville)
Browicz et Ziel.



Fig. 163. *Bupleurum fruticosum* L.

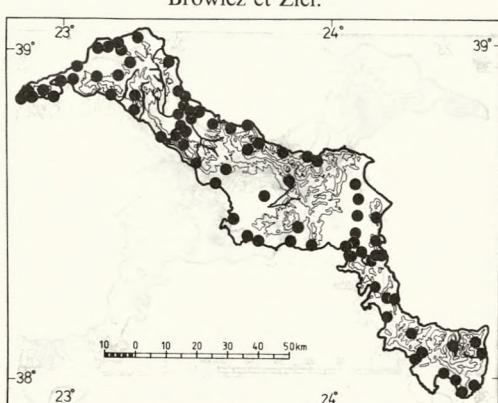


Fig. 164. *Vitex agnus-castus* L.

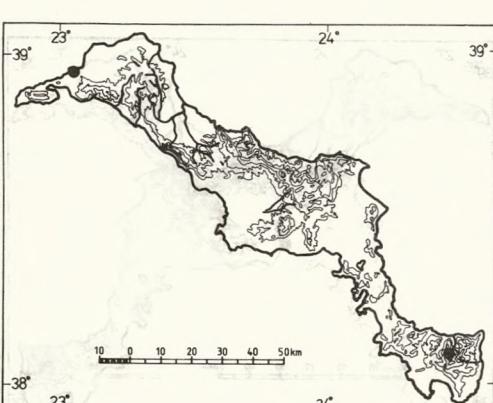


Fig. 165. *Vitis sylvestris* Gmelin

LITERATURE

- 1 Browicz K. — 1966. The genus *Periploca* L. A monograph. Arbor. Kórnickie 11:5—104.
- 2 Goulandris N., Goulimis C. N. — 1968. Wild flowers of Greece. Kifissia.
- 3 Jafri S. M. H. — 1977. *Capparaceae* in S. I. Ali and S. M. H. Jafri „Flora of Libya” 12:1—20. Tripoli.
- 4 Krause W., Ludwig W., Seidel F. — 1963. Vegetationstudien in der Umgebung von Mantoudi (Euböa). Bot. Jb. 82, 4:337—403.
- 5 Künkele S., Paysan K. — 1981. OPTIMA-Projekt „Kartierung der mediterranean Orchideen” 3. Die Orchideenflora von Euböa (Griechenland). Beih. Vöreffentl. Naturschutz u. Landschaftspflege in Baden-Württemberg 23.
- 6 Phitos D. G. — 1960. Phytogeographiki ervaena tis kentrikis Euboias. Athinai.
- 7 Rechinger K. H. — 1943. Flora Aegaea. Denkschr. Akad. Wiss. Math.-Nat. (Wien.). 105, 1.
- 8 Rechinger K. H. — 1961. Die Flora von Euböa, Bot. Jb. 80, 3:294—382.
- 9 Skroumbis B. G., Pinatzis K. L. — 1963. Contribution to the study aromatic and pharmaceutical flora of the Island Euböa (in Greek). Athinai.
- 10 Strid A. (ed.) — 1986. Mountain flora of Greece. 1. Cambridge.

Flora drzew i krzewów wyspy Eubei

Streszczenie

W roku 1986, od 21 sierpnia do 13 września, prowadzone były na Eubei, drugiej co do wielkości wyspie Grecji, badania terenowe poświęcone florze drzew i krzewów. Głównym celem tych badań było ustalenie pełnej listy roślin drzewiastych występujących tu w dzikim lub w zdziczałym stanie, a z drugiej opracowanie punktowych map rozmieszczenia każdego gatunku.

Opierając się na własnych zbiorach zielnikowych i terenowych obserwacjach, a także na materiałach zielnikowych z kilku zielników europejskich i na danych z literatury, ustalono, że na Eubei w warunkach naturalnych rośnie 179 taksonów drzew i krzewów (*Gymnospermae* 11, *Angiospermae* 168). Do liczby tej autorzy zaliczyli gatunki przez siebie znalezione i gatunki nie odnalezione, cytowane w literaturze, a zwłaszcza w pracy Rechingera (1961) „Die Flora von Euböa”. W porównaniu z tą ostatnią florą znaleziono 30 nowych dla wyspy taksonów drzew i krzewów, jak: *Acer platanoides*, *Arthrocneum fruticosum*, *A. macrostachyum*, *A. perenne*, *Amelanchier chelmea*, *A. ovalis* subsp. *ovalis*, *Amygdalus webbii*, *Cistus parviflorus*, *Elaeagnus angustifolia*, *Halimione portulacoides*, *Lavatera bryoniifolia*, *Lycium chinense*, *L. europaeum*, *Nicotiana glauca*, *Periploca graeca* var. *graeca*, *P. graeca* var. *vestita*, *Prunus spinosa* subsp. *dasyphylla*, *Quercus macrolepis*, *Q. petraea* subsp. *petraea*, *Q. petraea* subsp. *iberica*, *Rhamnus oleoides*, *Rosa arvensis*, *Rubus hirtus*, *Salix amplexicaulis*, *Salvia pomifera*, *Sambucus nigra*, *Scabiosa hyemata*, *Satureja parnassica*, *Thymbra spicata* i *Ulmus glabra*.

Najbogatszymi pod względem liczby gatunków okazały się rodziny: *Rosaceae* — 26, *Leguminosae* — 19, *Labiatae* — 14, *Fagaceae* — 11, a najbogatszymi rodzajami: *Quercus* — 10, *Rosa* — 7, *Daphne* — 5. Spośród nowo odkrytych gatunków na szczególnie wyróżnienie, a to w związku z rzadkością i geograficznym rozmieszczeniem, zasługują *Amelanchier chelmea* i *Scabiosa hyemata*, a także *Periploca graeca* var. *vestita*. Ten ostatni takson jest jednocześnie nowym dla flory całej Grecji. Dwa inne bardzo interesujące gatunki to endemity Eubei — *Daphne euboica* i *Quercus euboica*, których wartość systematyczna nie jest jednak dostatecznie jasna. Do gatunków podawanych z Eubei, lecz nie odnalezionych należą: *Adenocarpus complicatus*, *Amelanchier ovalis* subsp. *cretica*, *Chamaecytisus supinus*, *Clematis viticella*, *Convolvulus oleifolius*, *Daphne jasminea*, *Ephedra major* subsp. *procera*, *Fraxinus excelsior*, *Fumana pinatzzii*, *Juniperus excelsa*, *Ligustrum vulgare*, *Micromeria myrtifolia*, *M. nervosa*, *Podocytisus caramanicus*, *Ptilostemon gnaphalooides*, *Quercus cerris*, *Q. Virgiliana*, *Salix fragilis*, *Ulmus laevis*.

Opierając się na powyższych danych sporządzone zostały punktowe mapy rozmieszczenia 154 gatunków. Załączone do pracy zestawienie literatury o florze i roślinności Eubei dotyczy publikacji, które ukazały się po pracy Rechingera „Die Flora von Euboea”, Zgromadzone na wyspie materiały zielnikowe (359 numerów) przechowywane są w Zieleniku Instytutu Dendrologii Polskiej Akademii Nauk w Kórniku oraz w Goulandris Natural History Museum w Kifissia koło Aten.

Флора деревьев и кустарников острова Эвбеи*

Резюме

В 1986 г. с 21 августа по 13 сентября были проведены на Эвбее, втором по величине острове Греции, полевые исследования флоры деревьев и кустарников. Главной целью этих исследований было с одной стороны установление полного списка древесных растений растущих здесь в диком либо в одичавшем состоянии, а с другой — разработка точечных карт размещения каждого вида.

Основываясь на собственных гербарных материалах и полевых наблюдениях, а также на гербарных материалах из нескольких европейских гербариев и на литературных данных установлено что на Эвбее в естественных условиях растет 179 таксонов деревьев и кустарников (*Gymnospermae* 11, *Angiospermae* 168). К этому числу авторы причислили виды найденные ими и виды не найденные, цитируемые в литературе, а особенно в работе Rechinger (1961) „*Die Flora von Euboea*”. По сравнению с этой последней флорой найдено 30 новых для острова таксонов деревьев и кустарников, как: *Acer platanoides*, *Arthroc nemum fruticosum*, *A. macrostachyum*, *A. perenne*, *Amelanchier chelmea*, *A. ovalis* subsp. *ovalis*, *Amygdalus webbii*, *Cistus parviflorus*, *Elaeagnus angustifolia*, *Halimione portulacoides*, *Lavatera bryoniifolia*, *Lycium chinense*, *L. europaeum*, *Nicotiana glauca*, *Periploca graeca* var. *graeca*, *P. graeca* var. *vestita*, *Prunus spinosa* subsp. *dasyphylla*, *Quercus macrolepis*, *Q. petraea* subsp. *petraea*, *Q. petraea* subsp. *iberica*, *Rhamnus oleoides*, *Rosa arvensis*, *Rubus hirtus*, *Salix amplexicaulis*, *Salvia pomifera*, *Sambucus nigra*, *Scabiosa hymettia*, *Satureja pannassica*, *Thymbra spicata*, *Ulmus glabra*.

Наиболее богатыми по числу видов оказались семейства: *Rosaceae* — 26, *Leguminosae* — 19, *Labiatae* — 14, *Fagaceae* — 11, а самыми богатыми родами: *Quercus* — 10, *Rosa* — 7, *Daphne jasminnea*, *Ephedra major* subsp. *procera*, *Fraxinus excelsior*, *Fumana pinatzzii*, *Juniperus excelsa*, *Ligustrum vulgare*, *Micromeria myrtifolia*, *M. nervosa*, *Podocytisus caramanicus*, *Ptilostemon Periploca graeca* var. *vestita*. Этот последний таксон является одновременно новым для флоры всей Греции. Два других очень интересные виды это эндемики Эвбей — *Daphne euboica* и *Quercus euboica*, систематическая ценность которых еще не полностью ясна. К видам которые были поданы для Евбей, но не найденным относятся: *Adenocarpus complicatus*, *Amelanchier ovalis* subsp. *cretica*, *Chamaecytisus supinus*, *Clematis viticella*, *Convolvulus oleifolius*, *Daphne jasminnea*, *Ephedra maior* subsp. *procera*, *Fraxinus excelsior*, *Fumana pinatzzii*, *Juniperus excelsa*, *Ligustrum vulgare*, *Micromeria myrtifolia*, *M. nervosa*, *Podocytisus caramanicus*, *Ptilostemon gnaphaloides*, *Quercus cerris*, *Q. virgiliana*, *Salix fragilis*, *Ulmus laevis*.

Опираясь на вышеизложенные данные были разработаны точечные карты размещения 154 видов. Приложенный к работе список литературы о флоре и растительности Евбей относится к публикациям, которые показались после работы Рехингера (Rechinger „*Die Flora von Euboea*”). Собранные на острове гербарные материалы (359 номеров) хранятся в Гербарии Института Дендрологии Польской Академии Наук в Курнике, а также в Goulandris Natural History Museum в Кифисия около Афин.

* Авторы: Adam Boratyński, Kazimierz Browicz, Eжи Зелиński