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Trees and shrubs of Poros (Saronic Gulf, Greece)

Abstract

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Between 3rd and 25th of May, 1997 floristic dendrological studies were conducted on Poros island. The woody flora of Poros contains 61 species and 27 of them are reported for the first time. All species were characterised as regards their mode of occurrence. For 24 species point maps of distribution on Poros were elaborated on the basis of my own herbarium and field notes. Moreover, the alphabetical list of cultivated trees and shrubs was also presented.

Additional key words: flora, trees, shrubs, Greece, Poros.

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The small island of Poros, which has the area of only 23 km², is situated at the very edge of the Saronic Gulf, near the eastern coast of Peloponissos. It is composed of two islands linked by a very narrow canal. The smaller, southern island (Sferia), along its western side is compactly built over by the port of Poros, while the eastern side is represented by the waste terrain covered by *Sarcopoterium*. The bigger island (Kalavria) with some hills – the highest Vigla 390 m – is more populated but only along the southern and western coasts (Askeli, Mikro and Megalo Neorio).

The flora of Poros was enumerated in 1940 by Zaganiaris (*Actes Inst. Bot. Univ. Athens* 1: 237-263) and according to his opinion it has 510 species. This number is quite rich considering the size of the island, but probably is not complete. The central and southern part of Kalavria occupies the forest of *Pinus halepensis*. The maquis and phrygana are only fragmentary, usually occurring in the northern and western part of the island, mainly at the edge of forest and along the roads. In northwestern part the association of *Juniperus phoenicea* is very characteristic.

I conducted floristic penetration of the island in 1997, between 3rd and 25th of May. During this time I compiled a list of trees and shrubs and I collected herbarium specimens. As a result, I have found 61 species belonging to 31 families and 51 genera. The majority of these species is growing only on few localities with few specimens.

It appears that 27 species are not enumerated by Zaganiaris, namely: *Acer sempervirens*, *Arbutus andrachne*, *Arbutus unedo*, *Bupleurum fruticosum*, *Calicotome villosa*, *Cistus incanus*, *Cistus salvifolius*, *Ephedra foeminea*, *Erica manipuliflora*, *Euphorbia acanthothamnus*, *Fumana thymifolia*, *Globularia alypum*, *Hedera helix*, *Juniperus phoenicea*, *Medicago arborea*, *Nicotiana glauca*, *Phillyrea latifolia*, *Phlomis fruticosa*, *Pinus pinea*, *Pistacia terebinthus*, *Platanus orientalis*, *Pyrus spinosa*, *Quercus coccifera*, *Rhamnus oleoides*, *Rosmarinus officinalis*, *Smilax aspera* and *Spartium junceum*.

On the other hand I have not found any species reported by Zaganiaris, such as: *Atriplex halimus*, *Centaurea spinosa*, *Clematis flammula*, *Euphorbia dendroides*, *Helianthemum syriacum*, *Hippocrepis emerus* subsp. *emeroides*, *Ruta graveolens*, *Ruta chalepensis*, *Satureja graeca*, *Sueda vera*, *Teucrium brevifolium*, *Withania somnifera*. Maybe, part of these species is extinct (e. g. *Withania somnifera*), was described from culture (*Ruta*), were communicated by mistake or were collected not in Poros but in Peloponissos, near Galatas (*Atriplex halimus*, *Centaurea spinosa*). Zaganiaris mentioned this last place in his work. Unfortunately in the list of plants in his La Flore de Poros, the names of localities are missing.

Below I show two lists of the species of trees and shrubs, which I established, on the island. 1. species occurring in the wild or naturalised state, alphabetically by families and genera, 2. species cultivated, alphabetically by species. I quote herbarium specimens with abbreviation PB (=Poros-Browicz), and for more interesting or rare taxa I have prepared point maps of distribution. These specimens are deposited in the Herbarium of the Institute of Dendrology, Kórnik, Poland (KOR) and in the Herbarium of the Goulandris Natural History Museum, Kifissia, Greece (ATH).

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WILD TREES AND SHRUBS

Aceraceae

1. *Acer sempervirens* L.

The species is very rare. I found it only in one place (Fig. 1)

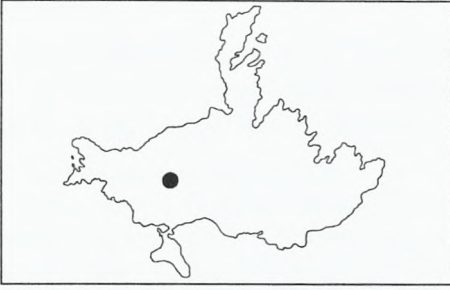
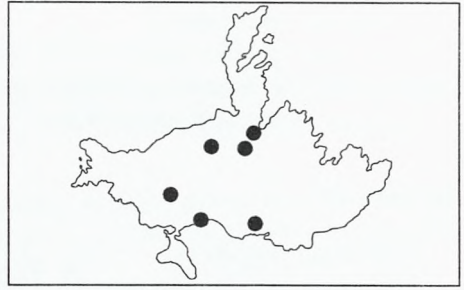
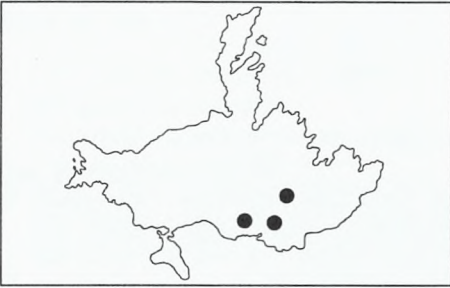
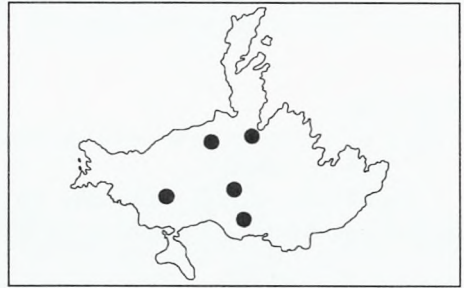
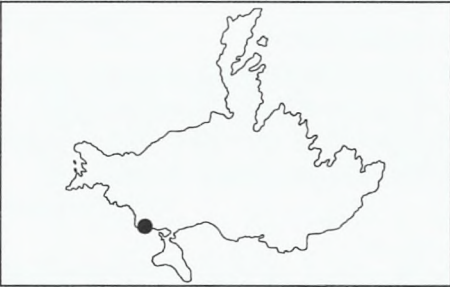
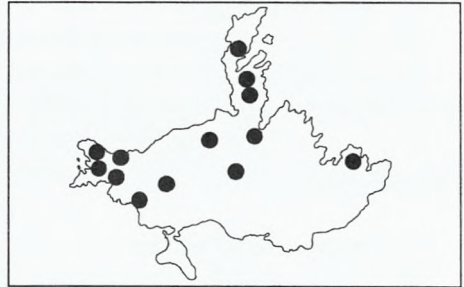
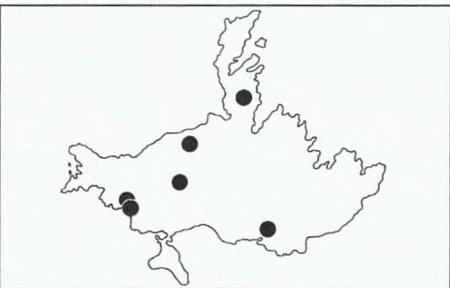
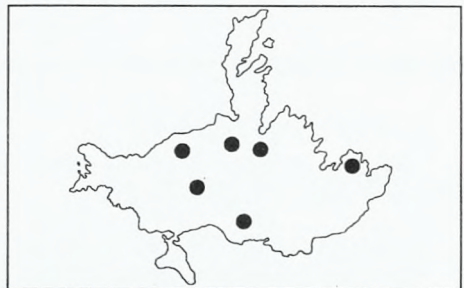
Between Askeli and Palatia (half way), in the western part of the island. One big clump of young specimens, but with fruits. PB 3 and 89.

Anacardiaceae

2. *Pistacia lentiscus* L.

Common in the whole island, but usually in singular specimens, rarer in small clumps.

Between Askeli and Palatia, not far from Palatia, at the border of the pine forest. PB 13.

Fig. 1. *Acer sempervirens* L.Fig. 2. *Pistacia terebinthus* L.Fig. 3. *Nerium oleander* L.Fig. 4. *Lonicera implexa* AitonFig. 5. *Atriplex portulacoides* L.Fig. 6. *Juniperus phoenicea* L.Fig. 7. *Ephedra foeminea* ForsskalFig. 8. *Arbutus andrachne* L.

3. *Pistacia terebinthus* L.

It is a rare species represented by only singular specimens, scattered (Fig. 2). Narrow valley in the centre of Askeli, only one shrub PB1.

Between Palatia and Askeli. PB2.

Apocynaceae

4. *Nerium oleander* L.

This species is very common in culture, in every village, but in the wild state I found it only in three places (Fig. 3).

In the pine-forest valley directed to the sea, in the eastern confines of Askeli-dense clumps in the bottom of the valley. PB 31.

Araliaceae

5. *Hedera helix* L.

I found this species only once, near the Monastery Zoodohos Pigi, where it spreads near the spring and climbs on the trunk of *Quercus coccifera* (in obs.).

Capparaceae

6. *Capparis spinosa* L.

This species is frequent along the road in the pine-forests.

Between Askeli and Palatia, western part of the island. PB 44. Between Askeli and the Monastery Zoodohos Pigi. PB 50.

Caprifoliaceae

7. *Lonicera implexa* Aiton

This species is rather rare and scattered, mainly along the roads, in the remnants of maquis and phrygana (Fig. 4).

Between Palatia and Askeli, western part of the island. PB 4.

Chenopodiaceae

8. *Atriplex portulacoides* L.

Very rare. I found this plant only in one place (Fig. 5). Just near the sea small clump, in Micro Neorio. PB 37.

9. *Sarcocornia fruticosa* A. J. Scott

Very rare in the western part of the island.

Between Micro and Megalo Neorio. PB 38.

Cistaceae10. *Cistus incanus* L.

It occurs throughout island, but usually in singular specimens. Island of Sferia, on the slope over the road in the eastern part of the island. PB 23.

11. *Cistus parviflorus* Lam.

This species is quite frequent in the western, northern and southern part of the island, but very rare in the eastern and central parts. Not far from Askeli to Monastery Zoodohos Pigi, at the border of pine-forest. PB 14.

12. *Cistus salvifolius* L.

Common, usually together with *Cistus incanus*. Between Askeli and Palatia, along the roads. PB 12.

13. *Fumana arabica* (L.) Spach

Frequent but scattered.

Between Askeli and Palatia, at the border of thickets, open, sunny places, eastern part of the island. PB 43.

14. *Fumana thymifolia* (L.) Spach ex Webb

More common than *Fumana arabica*, mostly in the southern part of the island. Central part of Askeli, on the slope over the road, common. PB 26. Near Foussa, common. PB 72.

Cupressaceae15. *Juniperus phoenicea* L.

This species is quite common in the northern part of the island and sometimes it forms pure thickets as in Akritsa and Vounokorofes (Fig. 6).

Near Limani Agapis, common. PB 42. Between Akritsa and Palatia. PB 91. Near Akritsa. PB 92.

Ephedraceae16. *Ephedra foeminea* Forsskal

I observed singular specimens mainly in the western part of the island, inside of the remnants of maquis (Fig. 7).

Near Megalo Neorio, on the slope over the sea with loose forest of *Pinus halepensis*. PB 34.

Ericaceae17. *Arbutus andrachne* L.

It is rather a rare species, scattered and represented usually by singular specimens (Fig. 8).

Between Askeli and Palatia, not far from Palatia, eastern part of the island. PB 7.
In the pine-forest valley, near the eastern confines of Askeli. Rare. PB 54.

18. *Arbutus unedo* L.

More common than the previous species, but also scattered (Fig. 9).

Between Askeli and Palatia, not far from Palatia, eastern part of the island. PB 8.
In the pine-forest valley, near the eastern confines of Askeli. PB 53.

19. *Erica manipuliflora* Salibs.

Scattered in the whole island, but usually at the border of pine forests, along the road.

Between Askeli and Monastery Zoodohos Pigi. PB 66.

Euphorbiaceae

20. *Euphorbia acanthothamnos* Heldr. et Sart.

This species is quite common in the north-western part of the island, on the rocks (Fig. 10).

In the pine-forest valley directed to the sea, in the eastern confines of Askeli, many specimens. PB 33. Between Palatia and Vitsi. PB 97.

Fagaceae

21. *Quercus coccifera* L.

It is rather a common species, dispersed throughout the whole island, but usually represented by singular, shrubby specimens. I observed a tree-like specimen only near the Monastery Zoodohos Pigi, over the spring.

Between Askeli and Foussa. PB 77.

Globulariaceae

22. *Globularia alypum* L.

The species is rather common in the southern and western part of the island. I never saw before in Greece so many specimens and so well developed.

Along the road between Askeli and Monastery Zoodohos Pigi. PB 15. Between Kanoni and Foussa, common (also specimens with glaucous leaves). PB 90.

Guttiferae

23. *Hypericum empetrifolium* Willd.

This species is scattered.

Between Palatia and Askeli, not far from Palatia, dispersed along the road. PB 5.

*Labiatae*24. *Coridothymus capitatus* (L.) Rchb. f.

Between Askeli and the Monastery Zoodohos Pigi, at the border of the pine forests, along the road, scattered. PB 67.

25. *Lavandula stoechas* L.

It grows almost in the whole island, but mostly in its southern and western part. Between Palatia and Askeli, rather common. PB 6.

26. *Phlomis fruticosa* L.

The species is quite common in the island, but it is scattered and forms only small clumps.

In the pine-forest valley directed to the sea, in the eastern confines of Askeli. PB 30.

27. *Prasium majus* L.

Common but scattered, represented by singular specimens.

The southernmost part of Sferia, below the sandy slope, along the road. PB 24.

28. *Rosmarinus officinalis* L.

Mikro Neorio, on the slope over the road (wild?, cult.?). PB 40.

29. *Salvia fruticosa* Mill.

Very rare. I found it only in two places, represented by few specimens (Fig. 11). Between Palatia and Vagonia Bay. PB 49.

30. *Salvia pomifera* L.

Very rare, only one locality in the northern part of the island (Fig. 12).

Between Kanoni and Foussa, near the road, only two specimens. PB 92.

31. *Satureja myrtifolia* (Boiss. et Hochen.) Greuter et Burdet

The species is common, especially along the roads.

Between Askeli and Monastery Zoodohos Pigi. PB 51. Near Foussa. PB 71.

32. *Satureja nervosa* Desf.

It is growing often together with the previous species. Zaganiaris mentions the hybrid of these two species – *S. hybrida*.

Near Foussa. PB 73.

33. *Satureja thymbra* L.

Common but scattered.

Between Askeli and Palatia, central part of the island. PB 16.

34. *Teucrium divaricatum* Sieber ex Heldr.

Calcareous ground near the Monastery Zoodohos Pigi. PB 57.

*Leguminosae*35. *Anthyllis hermanniae* L.

The species is quite common, but scattered at the border of pine forests and along the road.

Between Mikro and Megalo Neorio. PB 39.

36. *Calicotome villosa* (Poir.) Link

The species is scattered in the whole island.

Between Askeli and Monastery Zoodohos Pigi. PB 69.

37. *Ceratonia siliqua* L.

This species is scattered along the road and the border of maquis.

Between Askeli and Palatia. PB 11.

38. *Genista acanthoclada* DC.

This species is rather common in the northern part of the island, but usually represented by singular specimens or small clumps.

Between Mikro and Megalo Neorio, scattered. PB 41.

39. *Medicago arborea* L.

The natural status of this species in Poros is rather doubtful. Probably it is only naturalised, though in a few places it is native.

In the open pine-forest N of Megalo Neorio. PB 35.

40. *Spartium junceum* L.

It is a rare species, distributed only in the northern part of the island (Fig. 13).

Between Foussa and Palatia and Palatia-Vagonia. PB 48.

*Liliaceae*41. *Asparagus aphyllus* L.

This species is quite frequent in the whole island, but usually very scattered.

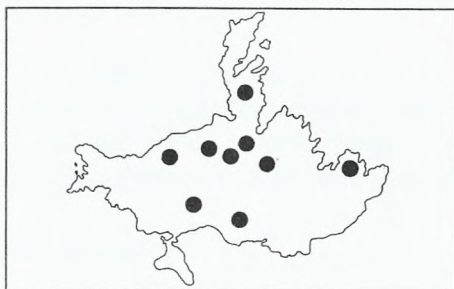
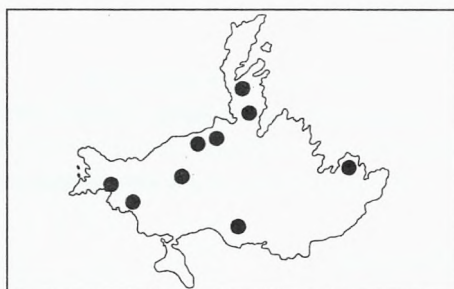
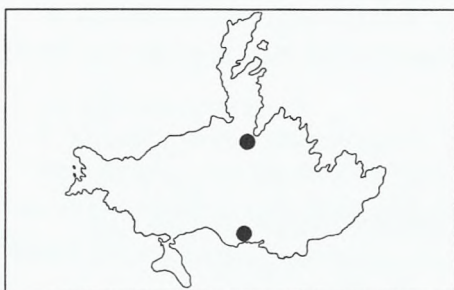
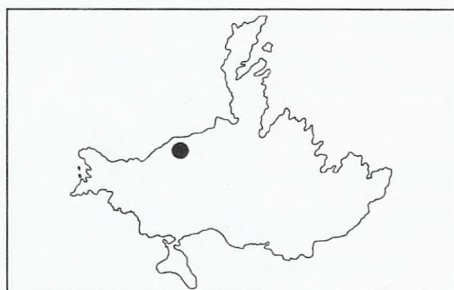
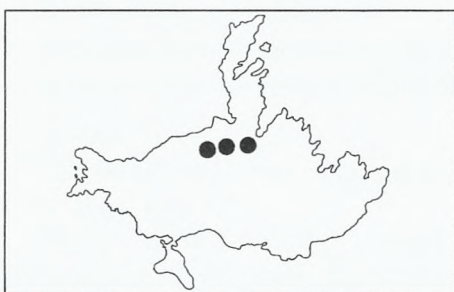
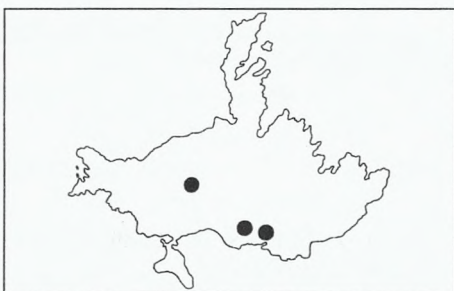
In the pine-forest valley directed to the sea, at the eastern confines of Askeli. PB 52.

Between Askeli and Foussa, along the road. PB 75.

42. *Smilax aspera* L.

This evergreen shrub is frequent, but scattered. Only in one place, in the pine-forest valley at the eastern confines of Askeli is it very common and forms bigger clumps climbing up to the crown of pine and hanging down in impenetrable festoons.

Sferia, on a small slope over the road. PB 22.

Fig. 9. *Arbutus unedo* L.Fig. 10. *Euphorbia acanthothamnus* Heldr. et Sart.Fig. 11. *Salvia fruticosa* Mill.Fig. 12. *Salvia pomifera* L.Fig. 13. *Spartium junceum* L.Fig. 14. *Lavatera bryoniifolia* Mill.Fig. 15. *Myrtus communis* L.Fig. 16. *Pinus pinea* L.

Malvaceae43. *Lavatera bryoniifolia* Mill.

It is a very rare species. I found it only in one place and only one small clump. (Fig. 14).

Between Palatia and Vagonia Bay, near Vagonia. PB 47.

Myrtaceae44. *Myrtus communis* L.

The species is rather rare, occurring mainly in the southern part of the island. (Fig. 15).

I found a bigger group only in the pine-forest valley directed to the sea, in the eastern confines of Askeli. PB 28.

Oleaceae45. *Olea europaea* L. subsp. *oleaster* (Hoffmanns. et Link) Negodi

This species is mostly distributed in the northern part of the island, in the remnants of maquis and in the southern part in an open pine-forest.

Between Askeli and Monastery Zoodohos Pigi. PB 65.

46. *Phillyrea latifolia* L.

Common in the whole island, especially in the pine-forests and remnants of maquis in the northern part, common in *Juniperetum phoeniceae*.

Between Askeli and Palatia. PB 9.

Pinaceae47. *Pinus halepensis* Mill.

It is very common, forming compact forests in the southern and central part of the island (in obs.).

48. *Pinus pinea* L.

This species is very rare. I found it only in one place—a solitary old tree situated between Palatia and Vagonia, maybe natural (Fig. 16).

Platanaceae49. *Platanus orientalis* L.

This species is represented on the island only in one place, where some old trees are growing (Fig. 17).

Deep and moist valley below the Monastery Zoodohos Pigi. PB 18.

Ranunculaceae50. *Clematis cirrhosa* L.

This species is frequent on the whole island, in some places it is very common.

Between Palatia and Vagonia Bay. PB 46. Between Askeli and Monastery Zoodohos Pigi, common in the valley below the monastery. PB 68.

Rhamnaceae51. *Rhamnus alaternus* L.

It is a rare species. I found it only in two places (Fig. 18).

In the pine-forest valley directed to the sea, in the eastern confines of Askeli. PB 29.

52. *Rhamnus oleoides* L.

It is a rare species represented only by singular specimens (Fig. 19).

Near Palatia, over the road to Askeli (Fig. 17). Near the Monastery Zoodohos Pigi, at the border of pine forest. PB 70. N of Askeli, the beginning of the road to Foussa. PB 70.

Rosaceae53. *Pyrus spinosa* Forsskal

It is a rare species represented only by singular specimens (Fig. 20).

In the western side of the island of Sferia. PB 25.

54. *Rubus sanctus* Schreb.

This shrub forms small clumps only on a few places, mostly in the southern part of the island (Fig. 21).

Sferia, along the road in the eastern part of the island. PB 21. In the pine-forest valley directed to the sea, in the eastern confines of Askeli. PB 98.

55. *Sarcopoterium spinosum* (L.) Spach

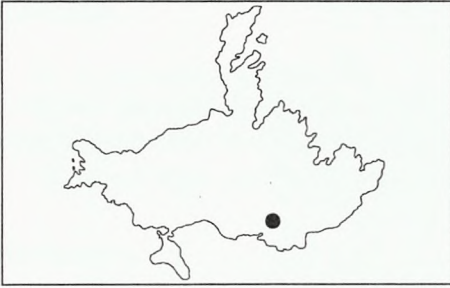
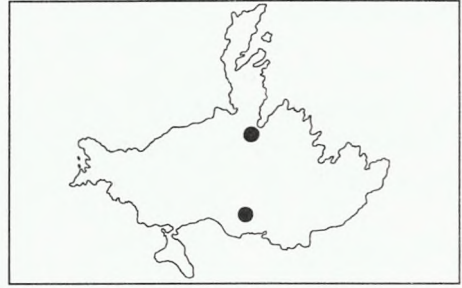
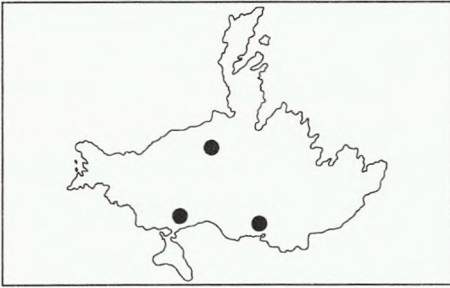
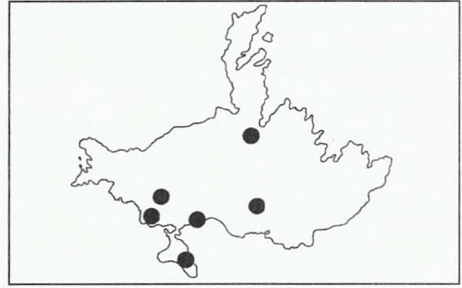
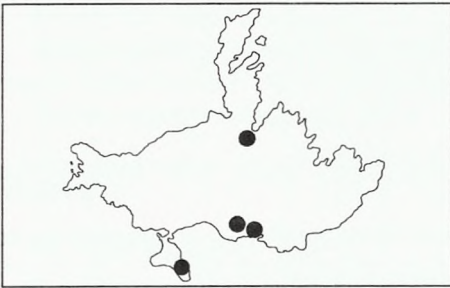
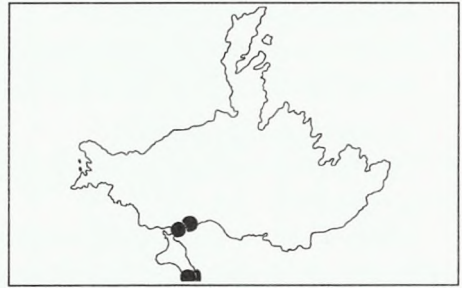
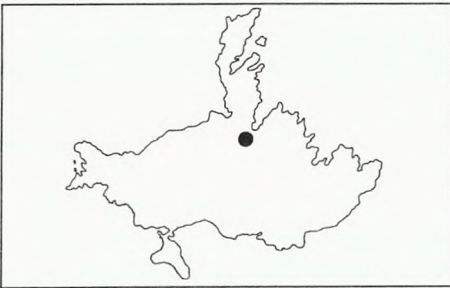
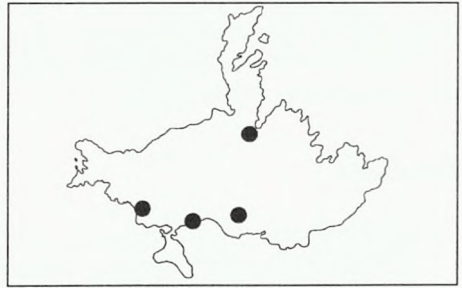
This species is only scattered on the whole island of Kalavria, but very common on the island of Sferia.

In the pine-forest valley directed to the sea, in the eastern confines of Askeli, on the open, sunny places. PB 32.

Rubiaceae56. *Rubia tenuifolia* Urv.

It is a rather frequent species, especially in the western part of the island.

Between Askeli and Palatia. PB 10.

Fig. 17. *Platanus orientalis* L.Fig. 18. *Rhamnus alaternus* L.Fig. 19. *Rhamnus oleoides* L.Fig. 20. *Pyrus spinosa* ForsskalFig. 21. *Rubus sanctus* Schreb.Fig. 22. *Nicotiana glauca* R.C. GrahamFig. 23. *Bupleurum fruticosum* L.Fig. 24. *Vitex agnus-castus* L.

Solanaceae

57. *Nicotiana glauca* R. C. Graham

Xenophyte. It grows only in the most southern part of the island. In Sferia along the sea and road of its southern part (Fig. 22).

The southern end of the port of Poros. PB 19.

Tamaricaceae

58. *Tamarix tetrandra* Pall. ex M. Bieb.

This species is very rare – singular specimens are growing only in the southern and western part of the island.

In the central part of Askeli, near the sea. PB 27.

Ulmaceae

59. *Ulmus minor* Mill.

I observed this species only in the eastern part of the island of Sferia – small, injured specimens along the road.

Umbelliferae

60. *Bupleurum fruticosum* L.

Very rare. I found it only in one place (Fig. 23).

Between Palatia and Vagonia Bay, only one clump, but very well developed. PB 45.

Verbenaceae

61. *Vitex agnus-castus* L.

It is a rare species, represented by singular specimens, only in the pine-forest valley in the eastern confines of Askeli it forms small clumps (Fig. 24).

In Askeli, near the sea. PB 97.

CULTIVATED TREES AND SHRUBS

1. *Acacia cyanophylla* Lindl.
2. *Ailanthus altissima* (Mill.) Swingle
3. *Albizia julibrissin* Durazz.
4. *Amygdalus communis* L.
5. *Araucaria heterophylla* (Salisb.) Franco
6. *Armeniaca vulgaris* Lam.

7. *Bilderdykia aubertii* (L. Henry) Moldenke
8. *Bougainvillea spectabilis* Willd.
9. *Brachychiton deversifolius* (G. Don) Terrac.
10. *Caesalpinia gillesii* (Hook.) Dietr.
11. *Callistemon* sp.
12. *Campsis radicans* (L.) Seeman
13. *Casuarina equisetifolia* Forest.
14. *Cassia corymbosa* Lam.
15. *Catalpa bignonioides* Walt.
16. *Cerasus avium* (L.) Moench.
17. *Cerasus vulgaris* Mill.
18. *Cercis siliquastrum* L.
19. *Citrus limon* (L.) Burm. f.
20. *Citrus sinensis* (L.) Osbeck
21. *Cupressus sempervirens* L. (*f. horizontalis*, *f. sempervirens*)
22. *Cycas revoluta* Thunb.
23. *Cydonia oblonga* Mill.
24. *Dracena* sp.
25. *Eucalyptus camaldulensis* Dehnh.
26. *Euonymus japonicus* L.
27. *Ficus benjamina* L.
28. *Ficus carica* L.
29. *Ficus elastica* Roxb.
30. *Hedera Helix* L. – forms
31. *Hibiscus rosa-sinensis* L.
32. *Hibiscus syriacus* L.
33. *Jasminum mesnyi* Hance
34. *Jasminum officinale* L.
35. *Juglans regia* L.
36. *Lagerstroemia indica* L.
37. *Lantana camara* L.
38. *Laurus nobilis* L.
39. *Ligustrum lucidum* Ait. f.
40. *Lonicera japonica* Thunb.
41. *Medicago arborea* L.
42. *Melia azedarach* L.
43. *Morus alba* L.
44. *Myoporus* sp.
45. *Nerium oleander* L. – forms
46. *Olea europaea* L. var. *europaea*
47. *Parkinsonia aculeata* L.
48. *Parthenocissus inserta* (A. Kerner) Fritsch

49. *Parthenocissus tricuspidata* (Sieb. et Zucc.) Planch.
50. *Phoenix canariensis* hort. ex Chabard
51. *Pittosporum tobira* (Thunb.) Ait. f.
52. *Platanus x acerifolia* Willd.
53. *Platycladus orientalis* (L.) Franco
54. *Populus alba* L.
55. *Populus uzbekistanica* 'Afghanica'
56. *Pistacia vera* L.
57. *Punica granatum* L.
58. *Pyracantha coccinea* Roemer
59. *Pyrus communis* L.
60. *Ricinus communis* L.
61. *Robinia pseudoacacia* L.
62. *Rosa* sp. – forms
63. *Rosmarinus officinalis* L.
64. *Salix babylonica* L.
65. *Schinus molle* L.
66. *Syringa x persica* L.
67. *Syringa vulgaris* L.
68. *Tamarix arborea* (Sieb. ex Ehrenb.) Bge.
69. *Viburnum opulus* L. 'Roseum'
70. *Viburnum tinus* L.
71. *Vitis vinifera* L.
72. *Washingtonia filifera* Chaub.
73. *Wisteria floribunda* (Willd.) DC.
74. *Yucca* sp.

Drzewa i krzewy wyspy Poros (Zatoka Saronńska, Grecja)

Streszczenie

W roku 1997, od 3 do 25 maja, autor prowadził poszukiwania terenowe poświęcone występowaniu drzew i krzewów na wyspie Poros, położonej u północno-wschodnich wybrzeży Peloponezu. Flora tej wyspy została opracowana w 1940 roku przez Zaganiarisa, który ocenił ją na 510 gatunków. Wyspa ta w środkowej i południowej części pokryta jest lasami sosnowymi (*Pinus halepensis*), a makia i frygana zaznaczona jest tylko fragmentarycznie na pobrzeżu lasów, wzdłuż dróg oraz na północnych krańcach.

Autor stwierdził obecność na wyspie 61 gatunków drzew i krzewów, z których aż 27 to gatunki nowe dla wyspy, niewymienione w pracy Zaganiarisa. Nie odnalazł jednak 12 gatunków, które jak przypuszcza, wyginęły bądź były błędnie podane, bądź też nie rosną na samej wyspie, lecz tylko na pobrzeżach Peloponezu w okolicach Galatas.

W alfabetycznym porządku, rodzinami i rodzajami, autor wymienia poszczególne gatunki drzew i krzewów, zaznaczając sposób występowania oraz cytuje własne okazy zielnikowe. Oprócz tego zestawil alfabetyczną listę 74 gatunków uprawianych na wyspie.