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Contribution to the woody flora of Kefallinia (Ionian Islands, Greece)

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Abstract. The authors penetrated floristically Kefallinia Is. in 1992 (May 20 – June 2), being interested in the occurrence of woody species. The results of these investigations include: 1 – Detailed elaboration of the localities of two rare species – *Dianthus fruticosus* and *Hypericum aegypticum*; 2 – Discovery of five species new for the island: *Salix alba*, *Celtis australis*, *Aristolochia sempervirens*, *Rosa canina* and *Nicotiana glauca*; and 3 – Compilation of a list of planted species of trees and shrubs, new for the island. For comparison the authors have used the flora of Kefallinia by Phitos and Damboldt (1985) and the catalogue of plants of the Ionian Islands made by Gutermann (1990).

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

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1. OCCURRENCE OF *DIANTHUS FRUTICOSUS* L. AND *HYPERICUM AEGYPTICUM* L.

Dianthus fruticosus L.

According to Runemark (1980) this species is represented on the Kefallinia Is. by subspecies *occidentalis* Runem. Presence of the species on the island has been first discovered by Heldreich in the second half of the 19th century from Assos and it has been later collected there several times by Davis, Damboldt, Phitos and Snogerup. This was the only locality of this species on the Ionian Islands, but in 1988 it was also discovered on several stands on one more island, on Zakynthos (Boratyński et al. 1991).

We have also found *Dianthus fruticosus* near Assos (Herb spec. – KOR), namely on the small foreland confine NW of Assos, on the external, sea facing walls and on the rocks incorporated into the walls of the Venecian fortress

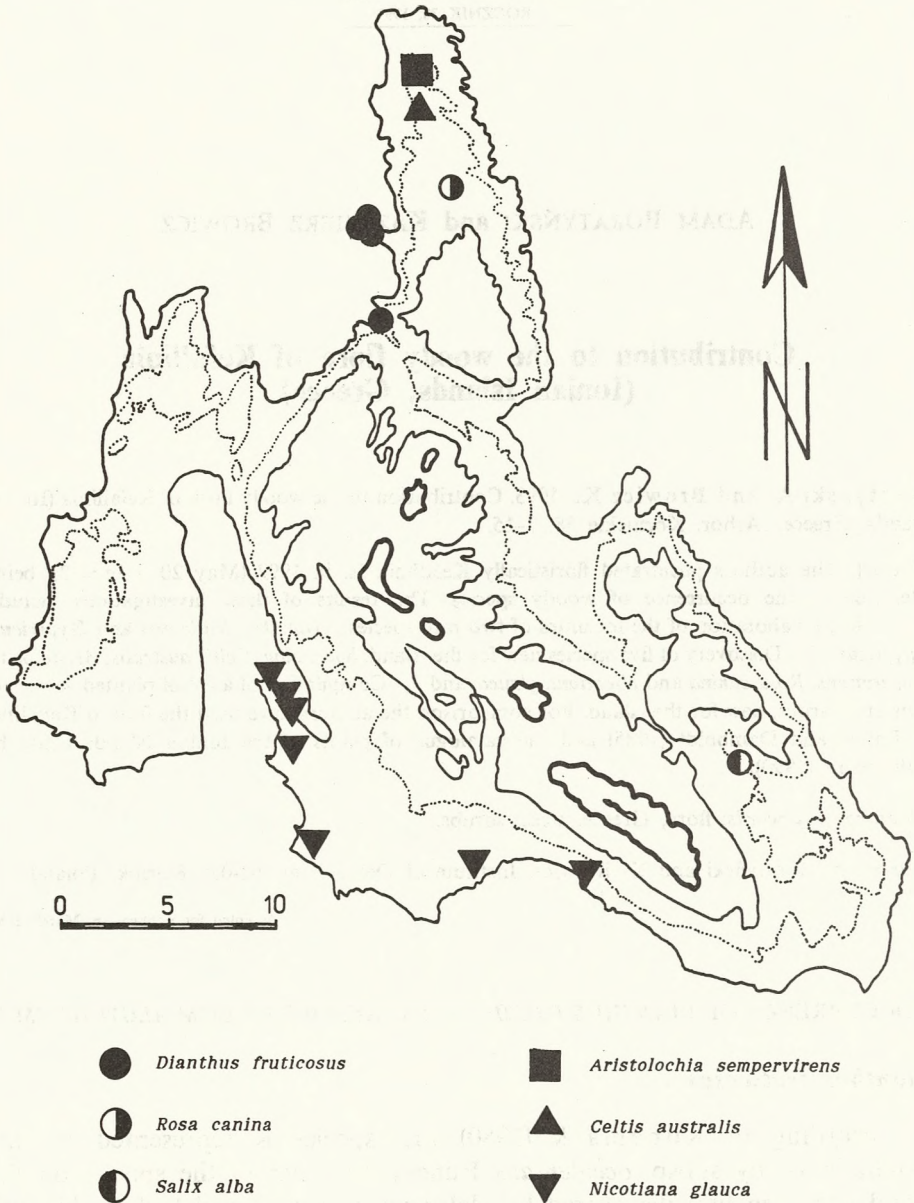


Fig. 1. New and rare species for the island of Kefallinia.

Frourio, on their W and NW side. The shrub is hanging vertically from rocky walls and is represented by both old and young specimens. Together with it in some places there grows another rare species – *Lomelosia crenata* (Cyr.) Greuter & Burdet subsp. *dallaporte* (Boiss.) Greuter et Burdet.

We have also found *D. fruticosus* on one more locality, new for the island, S of Assos near Myrto Beach (Fig. 1). The species grows there on a completely vertical, very high rock overtopping the central part of the beach. *D. fruticosus* occurs there quite abundantly, practically from the top of the rocky wall down to the beach, with lowest specimens at an altitude of 1-1,5 m above the beach surface.

Some, especially older, specimens are hanging more than 1 m down, while others, overgrowing small ledges of rock have their shoots ascending. On June 2nd a few of the shrubs have been blossoming, however, these were only the first flowers. The preserved, dried inflorescences from the previous year show that florescence can be abundant.

Hypericum aegypticum L.

This shrub is known in Greece from only few localities, the most abundant of them being on the island of Zakynthos, especially on the N and W shores of the island (Boratyński et al. 1991). Besides it grows at two localities on Crete and in one on the western shores of Peloponnisos. Similarly as previous species, *H. aegypticum* has been discovered from Kefallinia by Heldreich and till now has been reported there from only two localities – Ag. Theodori and Makrys Gialos (Phitos & Dumboldt, 1985), thus on the southern coast of the island, W and SW of Argostoli.

We have rediscovered the localities of *H. aegypticum* mentioned above and we have also tried to find new ones, making a search through the southern shores of the island from Gerogompos on the west to Skala on the east. It appears that the occurrence area of the species is very small and restricted to a narrow belt of the coast between Ag. Theodori and Platys Gialos (Fig. 2).

One can distinguish two types of stands. The first is on flat, solid rocks entering the sea and covered with numerous recesses and even small caves. On that type of rocks *H. aegypticum* grows singly and scattered, forming flat or semiglobular, cushion-like clumps, even up to 1 m tall. The species is not endangered here by competition from other plants, which appear only sporadically, as for example *Erica manipuliflora*, *Cichorium spinosum*, and *Limonium* sp. From the land-side larger specimens of *Hypericum* grow, but as a rule they are limited in their expansion by choking and pressing specimens of *Pistacia lentiscus* and *Myrtus communis*. In such conditions we have noticed the presence of the species at the following places:

1. Agios Theodori – rocks close near the chapel. We have found there only one shrub accompanying *Arthrocnemum macrostachyum* (Herb spec. ATH and KOR).
2. A flat rocks SE of Ag. Theodori (Fig. 3, 4) – the richest locality (Herb spec. ATH and KOR).
3. Close to the north of Lassi (Herb spec. ATH and KOR).
4. Lassi – near the beach (Herb spec. ATH and KOR).
5. Makrys Gialos – a locality already reported by Phitos and Damboldt (1985).

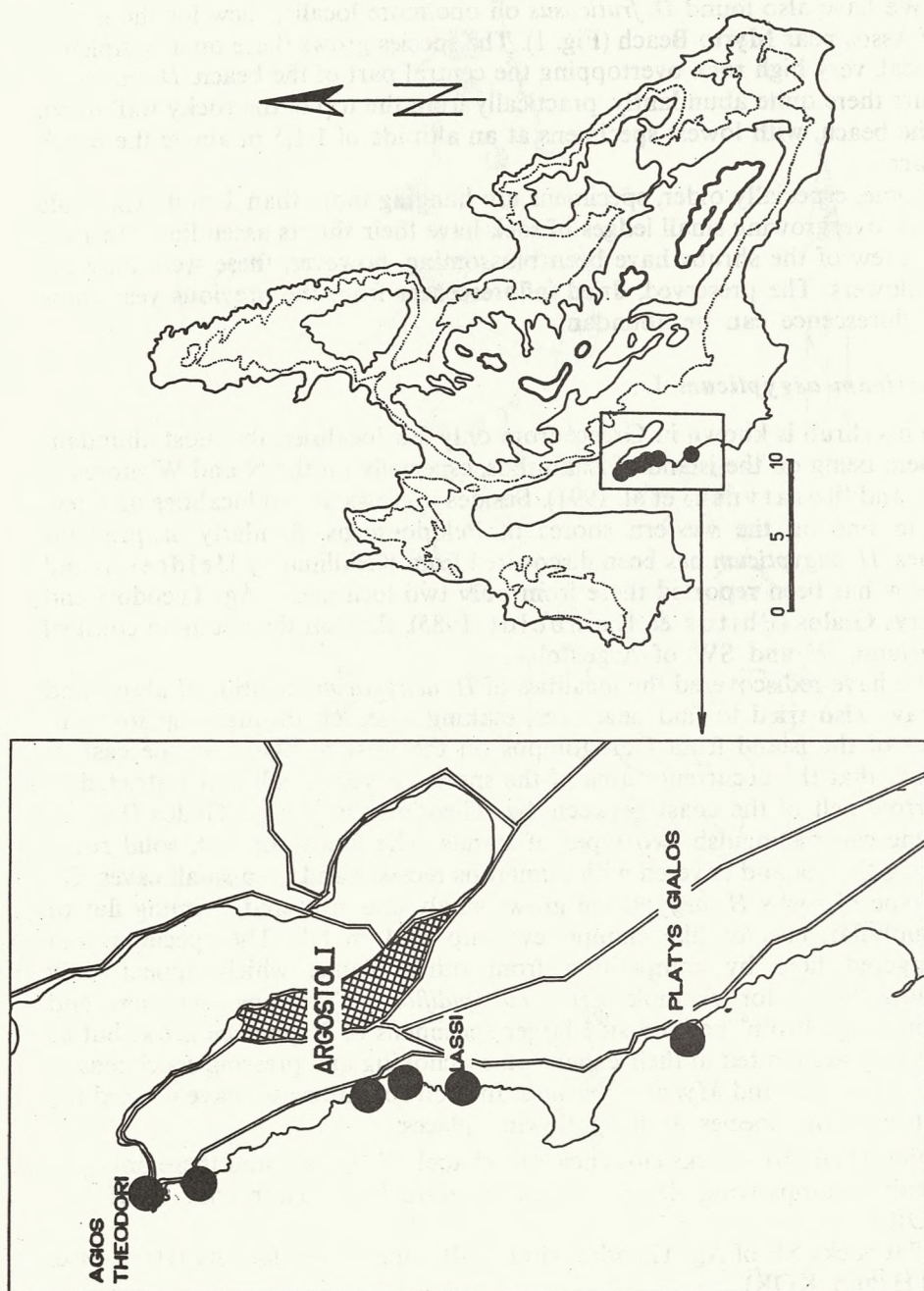


Fig. 2. Distribution of *Hypericum aegypticum* on Kefallinia.

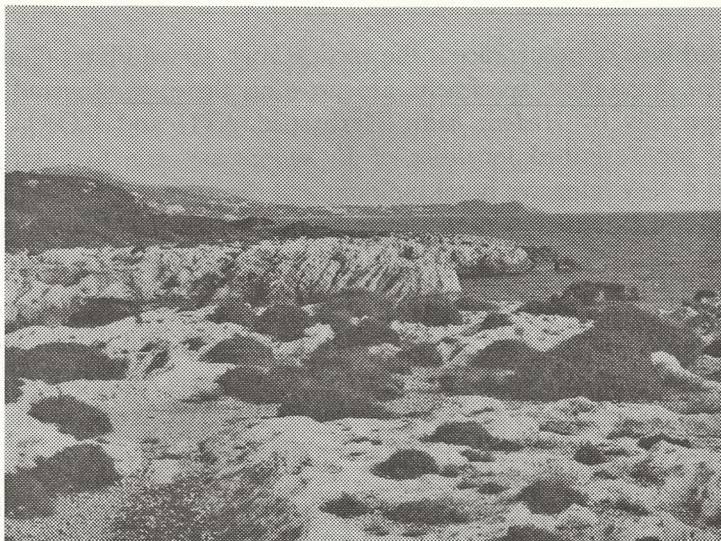


Fig. 3. Clumps of *Hypericum aegypticum* on the maritime rocks S of Agios Theodori (photo A. Boratyński).



Fig. 4. Calcareous maritime rocks, S of Agios Theodori, 'festooned' with *Hypericum aegypticum* (photo A. Boratyński).

A second type of occurrence is the vertical rock above Platys Gialos beach. Only scarce, pendulous specimens are growing there, endangered by other shrubs, especially by *Hedera helix* (Herb spec. ATH and KOR).

All of the described localities of *H. aegypticum* are, to a large extent, exposed to a very intensive hotel building and camping activity and therefore endangered in existence by people resting on the rocks, walking and trampling them.

2. NEW SPECIES OF TREES AND SHRUBS FOR THE FLORA OF KEFALLINIA

Salix alba L.

On the Ionian Islands the species was known from only two islands: Kerkira and Lefkas (Gutermann 1990). We have found it on the SE part of Kefallinia, in a deep gorge of a small brook running in the valley between Astros Mt on the north and Ainos Mt on the south, between Agios Nikolaos and Tzanata. A few trees grow here in barely accessible places close to the water together with *Platanus orientalis*, *Nerium oleander* and *Rosa sempervirens*. This stand is indisputably natural (Herb spec. ATH and KOR).

Celtis australis L.

We have found only one small tree of this species occurring in Ventourata village between Maganos and Konidarata in the northern part of the island. It grows close to a building so it could have been planted there, however, *C. australis* occurs normally in such conditions. We have found it also on the nearby island of Ithaki near Anogi village in an almond thicket.

Aristolochia sempervirens L.

This wintergreen climber has been reported from the Ionian Islands only from Ithaki and from the small islets of Skorprios situated near the western shores of the Lefkas Island (Nardi 1991). On Ithaki *A. sempervirens* occurs relatively frequently, especially on the southern part of the island. On Kefallinia, however, it is very rare. We have found it in one place only in the northern part of the island, close to the northern end of Vassilikiades village near the road from Assos to Fiskardo. It grows there in a thicket of *Quercus coccifera* with the participation of *Rubus canescens* in the understorey (Herb spec. ATH and KOR).

Rosa canina L.

This species, most common in Greece from the whole genus, has been reported from the Ionian Islands only from Kerkira and Lefkas (Gutermann

1990). We have found it in one place only, in the vicinity of Vary village in the northern part of Kefallinia island. It grows here in a roadside thicket together with *Quercus coccifera*, *Rubus ulmifolius*, *Phlomis fruticosa* and *Clematis flammula*. This rose is represented here by only a few shrubs (Herb spec. ATH and KOR).

Nicotiana glauca R.C. Graham

This South-American (Argentina, Bolivia) xenophyte has expanded throughout the Mediterranean region more or less from mid-19th century. It is planted for decorative purposes and went wild, becoming fully naturalized. It appeared in Greece in 1876 in Athens, and then in other parts of the country, both on the continent and on the islands (Browicz, 1993). It has not been reported from the Ionian Islands before. We have found it on Ithaki, where it grows in ruderal places in Vati port as well as on Kefallinia on a few stands in the southern part of the island:

1. Argostoli – few specimens in the gardens and waste places;
2. On a road escarpment facing the sea below the road, close near the N end of Argostoli – one tree-like specimen;
3. Between Katavothres and Agios Theodori – a few specimens near the road (Herb spec. ATH and KOR);
4. Near the road Lassi-Argostoli, on an elevated escarpment;
5. Near Koutourata – close to ruins of a building;
6. Close to Minia, N of the airport, on a littoral slope;
7. Gorge edge near Lourdata.

3. NEW SPECIES OF CULTIVATED TREES AND SHRUBS

The flora of trees and shrubs planted on the island is very rich, and even more numerous than the wild flora. Comparing our observations with data included in Gutermann's work (1990), a list of species by this author can be enlarged by the following species in alphabetical order (these materials concern mainly of two towns: Sami and Argostoli):

1. *Acacia cyanophylla* Lindley
2. *Acer negundo* L.
3. *Aesculus hippocastanum* L.
4. *Ailantus altissima* (Müller) Swingle
5. *Araucaria heterophylla* (Salisb.) Franco
6. *Armeniaca vulgaris* L.
7. *Brachychiton spectabilis* Willd.
8. *Broussonetia papyrifera* (L.) Vent – Argostoli cemetery
9. *Buxus sempervirens* L. – Argostoli cemetery
10. *Caesalpinia gilliesii* (Hook.) Dietr. – Zola

11. *Casuarina equisetifolia* Forst. – Assos
12. *Catalpa bignonioides* Walt.
13. *Cerasus vulgaris* Müller – near Tzanata
14. *Chaenomeles lagenaria* (Loisel) Koidz.
15. *Diospyros kaki* L. f. – Poros
16. *Eucalyptus camaldulensis* Dehnh.
17. *Ficus carica* L.
18. *Gleditschia triacanthos* L. – Plagia, Messovounia
19. *Gomphocarpus fruticosus* (L.) Aiton f. – Kondirata
20. *Hibiscus syriacus* L.
21. *H. rosa-sinensis* L.
22. *Jacaranda mimosifolia* D. Don – only in Argostoli
23. *Jasminum officinale* L.
24. *J. primulinum* Hemsl.
25. *Ligustrum vulgare* L.
26. *L. lucidum* Aiton f.
27. *Lantana camara* L.
28. *Lygos monosperma* (L.) Heyw.
29. *Malus domestica* Borkh.
30. *Melia azaderah* L.
31. *Parkinsonia aculeata* L.
32. *Parthenocissus tricuspidata* (Sieb. & Zucc.) Planch.
33. *Phoenix canariensis* Chaub.
34. *Pistacia vera* L. – Fiscardo
35. *Pittosporum tobira* (Thunb.) Aiton f.
36. *Platycladus orientalis* (L.) Franco
37. *Ricinus communis* L. 'Sanguineus'
38. *Robinia pseudoacacia* L.
39. *Sophora japonica* L.
40. *Spiraea prunifolia* Sieb. & Zucc. var. *plena* C. Schneid.
41. *Syringa vulgaris* L. – Fiscardo
42. *Viburnum tinus* L.
43. *Wisteria floribunda* (Willd.) DC.

This list together with the data collected by Gutermann (1990) probably do not fully cover all the tree and shrub species planted on the island, and it is very likely that one can find other exotic, decorative species in private gardens.

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Materiały do flory drzew i krzewów wyspy Kefalinii (Wyspy Jońskie, Grecja)

STRESZCZENIE

Autorzy, prowadząc prace florystyczne na Kefalinii w 1992 r. (20 maja – 2 czerwca), zajęli się badaniami występowania drzew i krzewów. Wynikiem tych badań jest:

1. Szczegółowe opracowanie stanowisk dwóch rzadkich gatunków: *Dianthus fruticosus* i *Hypericum aegypticum*.
2. Wykrycie pięciu nowych dla flory wyspy gatunków: *Salix alba*, *Celtis australis*, *Aristolochia sempervirens*, *Rosa canina* i *Nicotiana glauca*.
3. Lista nowych uprawianych tutaj drzew i krzewów ozdobnych.

Dla celów porównawczych autorzy posługiwali się opracowaniem flory Kefalinii Phitosa i Damboldta (1985) oraz katalogiem roślin naczyniowych Wysp Jońskich Gutermanna (1990).

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