

D. Christodoulakis, R. Artelari, Th. Georgiadis & D. Tzanoudakis

## New records to the flora of Fourni (E. Aegean islands, Greece)

### Abstract

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96 taxa of vascular plants are reported as new to the whole Fourni island group, Greece. After this addition, the total number of taxa known from the islands is about 334.

### Introduction

Fourni is a Greek island group situated in the eastern Aegean, between the islands of Ikaria and Samos and it consists of 17 islets (Fig. 1). Eight of these are studied here (see abbreviations in the plant list). The biggest islets are Fourni and Thimena which cover an area of ca. 30 km<sup>2</sup> and ca. 10 km<sup>2</sup>, respectively. All islands and islets have a low altitude. The highest hilltop is 430 m on the Fourni island. Only the islands of Fourni and Thimena have been inhabited since the old times. The whole island group consists of marbles and schists. The most important references for the flora of Fourni are: Rechinger (1943) and Davis (1965-1988).

### Materials and Methods

This study is based on collections and field observations carried out mainly by the first author in May 1989 and in October 1990. The collection of Bothmer & Strid (July 1964) was also studied. Herbarium specimens are deposited at UPA. The nomenclature is after Davis (1965-1985) and, where possible, Greuter & al. (1984-1989). The sequence of families, genera and species in the plant list is alphabetical.

### Results

#### Plant list

Collection sites (islet): A=Alatonisi, 9. X. 1990, Christodoulakis & Panitsa 3522-3551, F=Fourni, 1-2 km E of the town, c. 200 m, 12. VII. 1964, Bothmer & Strid 21838 (LD); supra pagum Fourni, 20. V. 1989, Christodoulakis & al. 2361-2435; inter pagum Chrysomilia et cacumen Korakas, 22. V. 1989, Christodoulakis & al. 2522-2587; ibid., 10.

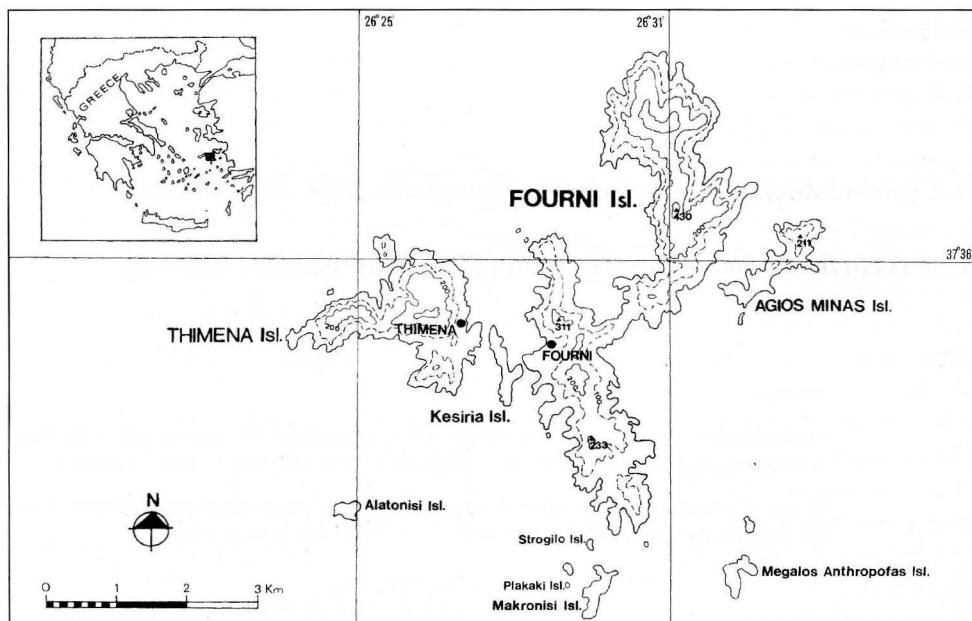


Fig.1. Map of the Fourni island group.

X. 1990, Christodoulakis & Panitsa 3425-3434, K=Kesiria, M=Makronisi, 9. X. 1990, Christodoulakis & Panitsa 3495-3511, MA=Megalos Anthropofas, 9. X. 1990, Christodoulakis & Panitsa 3435-3473, P=Plakaki, 9. X. 1990, Christodoulakis & Panitsa 3474-3494, S=Strogilo, 9. X. 1990, Christodoulakis & Panitsa 3512-3521, T=Thimena, phrygana, 150 m s. m., 13. VII. 1964, transplanted and flowered in Lund 1966, Bothmer 97 (LD); 21. V. 1989, Christodoulakis & al. 2436-2521.

#### **PTERIDOPHYTA**

##### **Polypodiaceae**

*Cheilanthes pteridoides*: F (2578), T (2486a)

##### **Selaginellaceae**

*Selaginella denticulata*: T (2486b)

#### **DICOTYLEDONES**

##### **Anacardiaceae**

*Pistacia lentiscus*: F (obs.)

##### **Boraginaceae**

*Alkanna tinctoria*

subsp. *tinctoria*: F (2389)

*Anchusa hybrida*: F (2574)

*Neatostema apulum*: F (2435)

*Onosma graeca*: F (2392), T (2508)

##### **Campanulaceae**

*Legousia speculum-veneris*: F (2585), MA (3443), T (2484)

##### **Capparaceae**

*Capparis orientalis*: A (3545)

##### **Caprifoliaceae**

*Lonicera etrusca*: F (obs.)

##### **Caryophyllaceae**

*Dianthus elegans*: F (2550), T (2484)

*Petrorhagia velutina*: T (2489)

##### **Chenopodiaceae**

*Beta maritima*: P (3486)

##### **Cistaceae**

*Fumana thymifolia*: F (2395), T (2496)

*Helianthemum salicifolium*: MA (3450)

**Compositae**

- Carlina graeca*: A (3549)  
*C. lanata*: P (3485)  
*Carthamus leucocaulos*: F (2402)  
*Chrysanthemum segetum*: F (2387)  
*Inula graveolens*: A (3544)  
*Logfia gallica*: F (2429)  
*Picris pauciflora*: F (2535), T (2455)  
*Rhagadiolus stellatus*: F (3434)  
*Scariola acanthifolia*: F (21838)  
*Steptorhamphus tuberosus*: F (2364), T (2463)  
*Tolpis virgata*: F (2379)

**Crassulaceae**

- Rosularia serrata*: F (2566), T (2493)  
*Sedum hispanicum*: F (2528), T (2494)  
*S. sediforme*: F (3428), M (3501)

**Cruciferae**

- Aurinia saxatilis*  
     subsp. *megalocarpa*: F (2568)  
*Hirschfeldia incana*: T (2448a)  
*Matthiola sinuata*: MA (3454)  
*Raphanus raphanistrum*  
     subsp. *raphanistrum*: F (2375)  
*Sisymbrium orientale*: T (2448b)  
*S. polyceratum*: T (2440)

**Frankeniaceae**

- Frankenia pulverulenta*: P (3492)  
**Gentianaceae**

- Centaurium tenuiflorum*: MA (3440)  
**Geraniaceae**

- Erodium gruinum*: F (2530)

**Labiatae**

- Salvia verbenaca*: F (2383)  
*Stachys cretica*  
     subsp. *smyrnaea*: T (2474)  
*Teucrium divaricatum*: F (2571), M (3498), P (3481)

**Leguminosae**

- Calicotome villosa*: F (obs.)  
*Ceratonia siliqua*: F (obs.)  
*Hymenocarpos circinnatus*: F (obs.)  
*Lathyrus saxatilis*: F (2558)  
*Lens ervoides*: T (2471)

- Lotus edulis*: F (2531b), MA (3437)

- Lupinus angustifolius*  
     subsp. *angustifolius*: F (2556)

- Medicago disciformis*: MA (3472)

- M. monspeliaca*: S (3515)

- Melilotus italicus*: F (2582a)

- Ononis reclinata*: F (2583), T (2468)

- Securigera cretica*: T (2469)

- Trifolium arvense*: F (2372)

- T. grandiflorum*: T (2473)

- Trigonella balansae*: F (2534)

**Linaceae**

- Linum bienne*: F (2382)

**Malvaceae**

- Malva sylvestris*: T (2497)

**Orobanchaceae**

- Orobanche minor*: MA (3465), T (2453)

**Papaveraceae**

- Papaver rhoeas*: F (2579b), MA (3466)

**Plumbaginaceae**

- Limonium graecum*: MA (3467)

- L. narbonense*: S (3518)

- L. virgatum*: S (3515)

**Primulaceae**

- Anagallis arvensis*: A (3527), F (2373), M (3502)

- Cyclamen hederifolium*: F (3427)

**Ranunculaceae**

- Clematis cirrhosa*: T (2449)

- Delphinium peregrinum*: T (2450)

- Nigella arvensis* subsp. *glaucia*: F (2416)

**Rubiaceae**

- Galium canum*: F (2575)

- G. intricatum*: F (2539), T (2479b)

**Rutaceae**

- Ruta chalepensis*: T (2507)

**Santalaceae**

- Thesium bergeri*: F (2542)

**Scrophulariaceae**

- Scrophularia heterophylla*: F (2374), T (obs.)

- S. lucida*: F (2538)

**Umbelliferae**

- Bupleurum gracile*: F (2406), MA (3449),

- T (2499)

- Daucus broteri*: MA (3459)

**MONOCOTYLEDONES****Amaryllidaceae***Sternbergia lutea*: F (3430)**Gramineae***Aegilops biuncialis*: F (2428)*Aira elegantissima*: F (2378)*Andropogon distachyos*: F (2414), T (2521a)*Avellinia michelii*: F (2396)*Avena barbata*: F (2581), T (2518)*Gastridium phleoides*: F (2434)*Hordeum bulbosum*: F (2368), T (2514)*Melica ciliata* subsp. *taurica*: T (2512)*Phalaris minor*: F (2369)*P. paradoxa*: T (2513)*Poa bulbosa*: F (2427)*Rostraria cristata*: A (3539), P (3480), S (3514)*R. smyrnacea*: F (2393)*Vulpia cf. muralis*: A (3526)**Liliaceae***Allium paniculatum*: T (97)*Asparagus aphyllus*subsp. *orientalis*: F (2426), T (2445)*Colchicum variegatum*: M (3507)*Scilla autumnalis*: F (3429), M (3506),

MA (3461)

**Discussion**

In the plant list given above 96 taxa have been recorded from the Fourni island group for the first time.

As the whole flora is concerned, therophytes are by far the best represented (ca. 60%) in the life-form spectrum, and this can be attributed to the long summer aridity, followed by the hemicryptophytes (ca. 17%).

Also, concerning the distribution of the taxa, the Mediterranean elements are over-represented with 264 taxa (79%). Of these, the Stenomediterranean element is dominant with 99 taxa (29.6%). 65 taxa (19.5%) in the studied area can be regarded as widely distributed.

The endemic flora comprises 5 taxa (1.5%): 3 taxa, *Campanula lyrata* subsp. *icarica*, *Onopordum majori* and *Verbascum icaricum*, are strictly endemic to the Aegean islands, and 2 taxa, *Carthamus leucocaulos* (firstly recorded) and *Limonium ocymifolium*, are endemic to Greece as a whole. There are no endemics exclusive to Fourni island group.

The majority of the species recorded from the Fourni are shared with the neighbouring islands of Samos and Ikaria. Thirteen of the species found on Fourni islets, however, are lacking on Samos and Ikaria.

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## Address of the authors:

D. Christodoulakis, R. Artelari, Th. Georgiadis & D. Tzanoudakis, Botanical Institute, University of Patras, GR-26500 Patras, Greece.