Flora Montiberica 37: 77-80 (XII-2007). ISSN 1138-5952

THYMUS RICHARDII (LAMIACEAE) IN THE IBERIAN PENINSULA

Jesús RIERA, Jaime GÜEMES & Josep A. ROSSELLÓ
Jardí Botànic, Universitat de València. C/Quart 80, E-46008 València. rossello@uv.es

SUMMARY: The presence of *T. richardii* Pers. in the Iberian Peninsula has been verified. Populations of this thyme were detected at Serra de La Safor (Valencia), where it was previously collected about 50 years ago. The Iberian individuals differ from the other subspecies by a different leaf basis and margin and are described as a new subspecies, *T. richardii* subsp. *vigoi* Riera, Güemes & Rosselló.

RESUMEN: Se describe una nueva entidad de *T. richardii* Pers. (*T. richardii* subsp. *vigoi* Riera, Güemes & Rosselló) de la zona montañosa del sur de Valencia y norte de Alicante (Sierra de La Safor), que se distingue de las otras subespecies por presentar las hojas cordadas y el margen denticulado.

INTRODUCTION

Thymus richardii Pers. is a Mediterranean species showing a fragmented and scattered distribution. It was first described from Balearic material (Mallorca) by PERSOON (1806), and later on its presence was recorded on Ibiza (cf. FONT QUER, 1935), Sicily, (as *T. nitidus* Guss.; JALAS 1971, 1972) and on the European continent (Serbia, as *T. aureopunctatus* Beck; JALAS 1971, 1972). Subtle morphological differences among allopatric populations, mainly in calyx features, have been reported, and on this basis *T. richardii* has been split in three subspecies (JALAS 1971, 1972): *T. richardii* subsp. *richardii* (Mallorca and Serbia), *T. richardii* subsp. *ebusitanus* (Font Quer) Jalas (Ibiza) and *T. richardii* subsp. *nitidus* (Guss.) Jalas (Sicily).

The only known record of *T. richardii* from the Iberian Peninsula is due to BOLÒS & VIGO (1983), who reported it from Valencia (E Spain) on the basis of herbarium specimens collected at Serra de la Safor by P. Cañigueral in 1950. These authors described the Iberian individuals as a new variety (*T. richardii* var. *valentinus*) characterized by the presence of cordate leaves. Since then, the plant was not found again at the type locality, and its presence in local and regional floras was excluded (cf. MATEO & CRESPO, 2003).

Recently, while conducting field work at Serra de la Safor we found *T. piperella* L. and several small populations from another thyme approaching morphologically *T. richardii* var. *valentinus*. A close inspection of these individuals from *T. richardii* from the whole area has shown subtle, but constant, morphological differences between the Iberian plants and those inhabiting Mallorca, Ibiza and Sicily islands, and the Balkan territory. The morphological discontinuities are associated with a precise geographical range and the recognition of the Iberian plants at the subspecific level seemed justified.

RESULTS

Thymus richardii Pers. subsp. **vigoi** Riera, Güemes & Rosselló, *subsp. nova* (fig. 1).

DIAGNOSIS: *A Thymo richardii subspespecies plurimi similis sed foliis cordatis, denticulatis.*

Derivatio nominis: from Josep Vigo i Bonada, who first recognized the singularity of the valencian plant.

HOLOTYPUS*:* **Hs, VALENCIA:** Villalonga (La Safor), Serra de La Safor, ad L'Orxa, 30SYJ3706, 600 m, 4-VII-2000, in fruticetis all. *Rosmarino-Ericion*, ubi legerunt *J. Riera & J. Güemes* (VAL 185406).

Isotypi*:* ABH, B, BC, K, MA.

Selected material examined:

1. ***Thymus richardii*** subsp. ***vigoi***: **Hs, VALENCIA:** Villalonga, Circo de Azafor, 30S YJ30, 136 m, 22-VI-1984, matojar calcícola, *Peris & Stübing* (VAL 11699, ut *T. piperella*). Id., Circ de La Safor, sobre el refugi, 30SYJ 38090581, 600 m, 22-VI-2005, matollars de Rosmarino-Ericion, *Riera & Ballesteros* (VAL 185407); pr. Gandia, l. Azafor, 15-IX-1950, *Cañigueral* (BC 114583 y 119858, *ut T. richardii var. valentinus*). **Hs, ALICANTE:** L' Orxa, Serra de la Safor pr. Les Mallades, pista forestal a Villalonga, 30SYJ3605, 560 m, 11-07-2000, matollars de *Rosmarino-Ericion, Riera & Güemes* (VAL-185405).

2. ***Thymus richardii*** subsp. ***richardii.*** **Hs, MALLORCA:** Puig Major, Escorca, 10-VII-1986, *Ll. Sáez* (MA 592837); Fornalutx, Coma de N'Arbona, (HJBS 3093, 3094 y 3095); Sóller, Coma de N'Arbona, 18-VII-1989, *Orell & al*. (GDA 23271).

3. ***Thymus richardii*** subsp. ***ebusitanus.*** **Hs, IBIZA:** cingles d'En Recó, 8-VI-1997, *M. Mayol & al.* (MA 592780); cala Aubarca, VIII-1974, *Lesuef* (MA 620032); Eivissa, 22-VI-1992, *Martín Osorio* (MGC 34355); Sant Antoni de Portmany, cala de les Torretes, 29-V-1918, *Gros & Font Quer* (BC 50117).

4. ***T. richardii*** subsp***. nitidus***. **It**, **Sicilia:** Isola di Maretino, Rupi di Auzino, 21-VII-2007, *Scuderi* (VAL-184304).

DESCRIPTION

Perennial plant, woody, sub-erect, with ascending stems (up to 30 cm), branched, and covered by short hairs. Leaves 5-11 x 3.5-9 mm, ovate-triangular, shortly denticulate, with a short petiole (0.5-2 mm), hairy, with spheroidal yellowish-reddish glands and few hairs at the base. Inflorescence oblong. Bracts resembling the leaves, but shorter; bracteoles linear 0.5-1.5 mm long. Calyx 4.5-6.5 mm long, hairy, with spheroidal yellowish-reddish glands; lower teeth 2.5-3.5 mm long, oblong, ± acuminate, with pectinate pluricellular hairs; upper teeth oblong, 1.9-2.2 mm long, pluricellular hairs few or absent. Corolla 7-9 mm long, whitish to pale rose.

TAXONOMIC REMARKS

Main morphological differences between the new taxon and the other subspecies of *T. richardii* are depicted in table 1. Subspecies *vigoi* can be easily differentiated from the other subspecies by its cordate leaf basis and the denticulate margin. The discrimination of the other entities (subsp. *richardii*, subsp. *ebusitanus*, and subsp. *nitidus*) is more subtle, and their circumscription is in need of revision using more powerful techniques. At Serra de la Safor intermediate individuals between *T. piperella* and *T. richardii* subsp. *vigoi* can be found. They are likely hybrid swarms between both taxa requiring further study. The presence of these putative hybrids makes difficult the identification of anomalous plants or poor-collected material. Thus, the taxonomic adscription of the type material of *T. richardii* var. *valentinus* to *T. richardii* subsp. *vigoi* is not without doubts. In fact, it could belong to a back-crossed hybrid individual between the later and *T. piperella*. Unfortunately, this could not be

adequately checked due to the poor collection comprising the type material.

DISTRIBUTION AND ECOLOGY

Currently, *T. richardii* subsp. *vigoi* has been found in scattered populations from Serra de la Safor (UTM coordinates: YJ 3504, 3604, 3605, 3705, 3706 and 3806), at the border of Valencia and Alicante provinces, between 125 and 600 m. It grows in calcicolous scrubs, in sunny and dry environments. Associated species were *Pinus halepensis*, *Quercus ilex* subsp. *ballota*, *Quercus coccifera*, *Rosmarinus officinalis*, *Thymus piperella*, *Thymus vulgaris*, *Brachypodium retusum*, *Pistacia lentiscus*, *Chamaerops humilis*, *Fumana ericifolia*, *Teucrium homotrichum*, *Teucrium capitatum*, *Rubia peregrina*, among others.

ACKNOWLEDGEMENTS: We thank the curators of the following herbaria, BC, BM, E, H, HJBS, K, MA, GDA, MGC and WU for the loan of specimens.

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(Recibido el 29-XI-2007)

	Thymus richardii			
	subsp. *vigoi*	subsp. *richardii*	subsp. *ebusitanus*	subsp. *nitidus*
Leaf				
base	cordate	cuneate	cuneate	cuneate
margin	shortly denticulate	entire	entire	entire to slightly denticulate
Calyx				
upper teeth: multicellular hairs	few or absent	present	absent	absent
tube: stipitate hairs	present	few or absent	present	present

Table 1. Main diagnostic characters between *T. richardii* subsp. *vigoi* and the other subspecies of *T. richardii*.

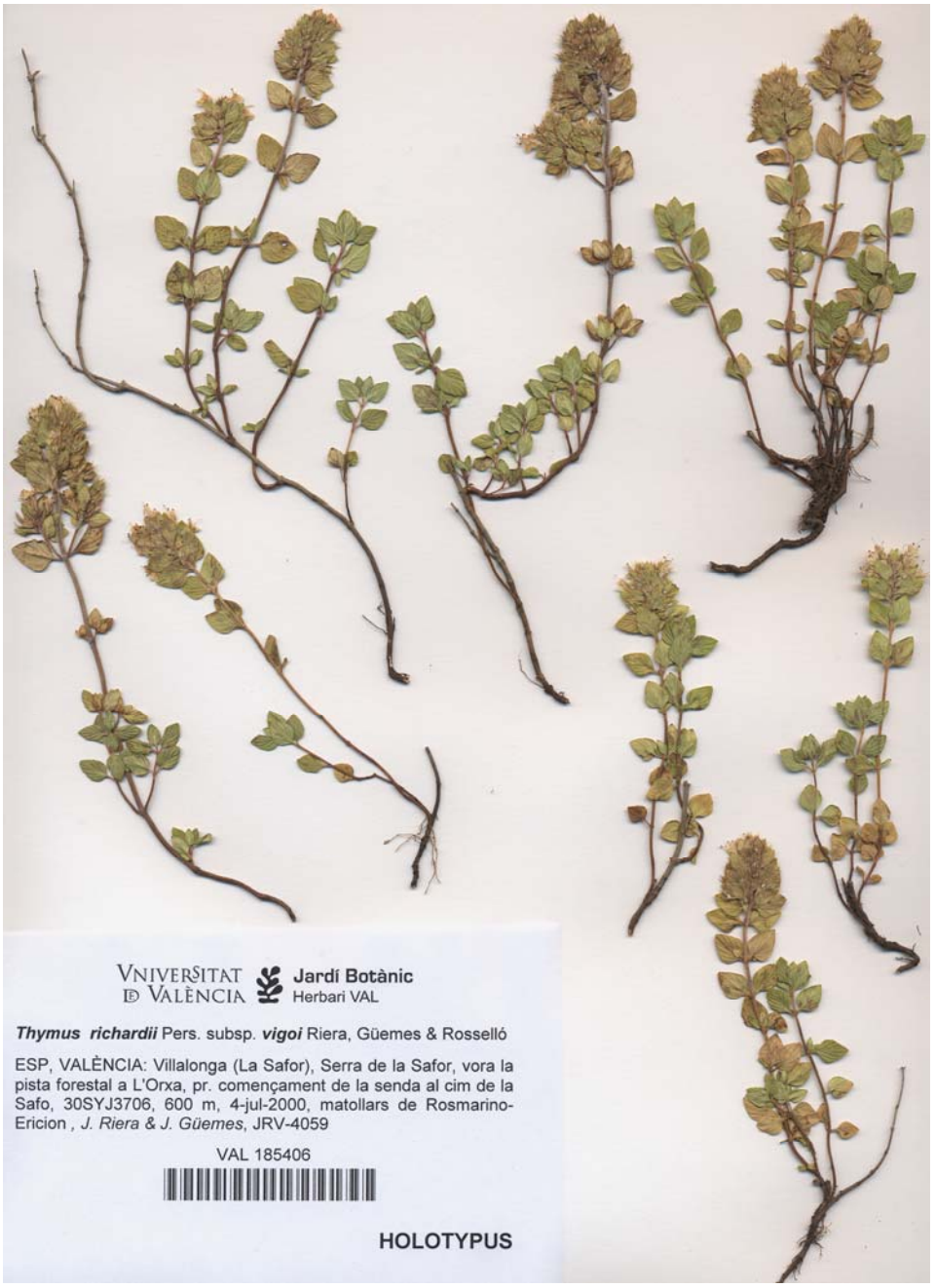

Fig. 1. Holotypus sheet of *Th. richardii* subsp. *vigoi.*

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