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On a new *Thymus* hybrid detected in C. Spain

Abstract

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A new hybrid of the genus *Thymus* L., coming from the Alto Tajo area (C. Spain) is here described under the proposed name of *T.* x *mercadalii* G. Mateo & J. M. Pisco, as a result of a cross between *T. izcoi* Rivas-Mart. & al. and *T. pulegioides* L.

Introduction

The genus *Thymus* is well represented in the mid-altitude areas of the Cordillera Ibérica (C. Spain), with at least eleven main species present. The most common species, those that are not substrate-specific, are *T. vulgaris* L., *T. pulegioides* L. and *T. zygis* Loefl. *T. mastigophorus* Lacaita, *T. borgiae* Rivas-Mart. & al. and *T. godayanus* Rivas-Mart. & al. all occur in calcareous terrain. Characteristic of gypsum-rich substrates are *T. lacaitae* Pau (La Mancha) and *T. loscosii* Willk. (Aragón), while in siliceous areas *T. mastichina* (L.) L., *T. leptophyllus* Lange and *T. izcoi* Rivas-Mart. & al. can be found.

All these are inchired to form hybrids with each other and, to date, many of the possible combinations have been detected, although many others remain to be discovered. In alphabetic order we can list the following hybrids detected in the above-mentioned territory, as published in the recent monographs of Morales (1995) and Mateo & Crespo (1993). Where the endemic *T. izcoi* is involved, the entries have been underlined.

T. x *arcuatus* R. Morales (*T. lacaitae* x *T. zygis*)
T. x *armuniae* R. Morales (*T. lacaitae* x *T. vulgaris*)
T. x *benitoi* G. Mateo & al. (*T. godayanus* x *T. pulegioides*)
T. x *bonichensis* G. Mateo & M. B. Crespo (*T. leptophyllus* x *T. mastichina*)
T. x *borzygis* G. Mateo & M. B. Crespo (*T. borgiae* x *T. zygis*)
T. x *brachychaetus* (Willk.) Coutinho (*T. mastichina* x *T. zygis*)
T. x *carolipaui* G. Mateo & M. B. Crespo (*T. pulegioides* x *T. vulgaris*)
T. x *celtibericus* Pau (*T. izcoi* x *T. mastichina*)
T. x *cistetorum* (G. Mateo & M. B. Crespo) G. Mateo & M. B. Crespo (*T. leptophyllus* x *T. vulgaris*)
T. x *eliasii* Sennen & Pau (*T. mastichina* x *T. vulgaris*)

T. x *ibericus* Sennen & Pau (*T. mastichina* x *T. mastigophorus*)
T. x *monrealensis* Pau ex R. Morales (*T. vulgaris* x *T. zygis*)
T. x *moralesii* G. Mateo & M. B. Crespo (*T. godayanus* x *T. vulgaris*)
T. x *navarroi* G. Mateo & M. B. Crespo (*T. izcoi* x *T. vulgaris*)
T. x *riojanus* Uribe-Echebarría (*T. loscosii* x *T. vulgaris*)
T. x *rivas-molinae* G. Mateo & M. B. Crespo (*T. borgiae* x *T. mastichina*)
T. x *rubioi* Font Quer (*T. loscosii* x *T. vulgaris*)
T. x *sennenii* Pau (*T. mastichina* x *T. pulegioides*)
T. x *severioanoi* Uribe-Echebarría (*T. mastigophorus* x *T. vulgaris*)
T. x *viciosoi* (Pau) R. Morales (*T. pulegioides* x *T. zygis*)
T. x *xilocae* G. Mateo & M. B. Crespo (*T. izcoi* x *T. zygis*)
T. x *zygophorus* R. Morales (*T. mastigophorus* x *T. zygis*)

Thymus x _mercadalii_ G. Mateo & J. M. Pisco, nothosp. nat. nov. [_T. izcoi_ Rivas-Mart. & al. x _T. pulegioides_ L.]

Holotypus. - Guadalajara, Checa, barranco de Los Huecos, 30TWK9781, in pascuis siccis solo siliceo, 1440 m, 23 Jun 1994, *J. M. Pisco & N. E. Mercadal* (VAB 95/0573) (Fig. 1).

Diagnosis. - A *Thymo pulegioide* differt statura minore, caulis lignosioris tomentosis in 4 faciebus, foliis brevioribus crasioribus angustioribusque, inflorescentii subsphaericis non interruptis, floris cum calycis et corollis longioribus.
A *Thymo izcoi* differt statura majore, caulis minus lingosis, foliis longioribus tenuioribus latioribus manifeste nervatis, calycis et corollis minoribus.

Differing from *T. pulegioides* in its small size, woody stems tomentose on the four angles, leaves with shorter petioles, narrower and fleshier, sub-sphaerical non interrupted inflorescence, and flowers with longer calyx and corolla.

Differing from *T. izcoi* in its greater size, less woody stems, leaves possessing petioles, less narrowly linear, less fleshy and with nerves visible. Flowers with shorter calyx and corolla.

Description. - Dwarf shrub. Main stems procumbent or ascending, slightly woody below, from which arise relatively short, erect flowering stems of (2) 4-6 (8) cm, with the four angles tomentose, two of them more so. Leaves membranous-coriaceous, sessile or very shortly petiolate, oblanceolate, 4-7 x 1-2 mm. Inflorescence 1-2 cm, forming an apical sub-sphaerical glomerule, sometimes somewhat elongate, and consisting of several contiguous whorls. Flowers with a green calyx of 3-4 mm and pink corolla of 5-6 mm (Fig.2).

Observations. - *T. izcoi* Rivas-Mart. & al. is an interesting taxon recently described (Rivas-Martínez & al. 1988) belonging to sect. *Hyphodromi* (A. Kerner) Halacsy, endemic to the siliceous upland areas of C. and N. Cordillera Ibérica (C.E. Spain). It is fairly closely related to *T. leptophyllus* Lange, a plant with a considerably more restricted distribution (N.E. Cuenca), to which the populations which have been considered as *T. izcoi* were until recently attributed (Jalas 1972, Morales 1986).

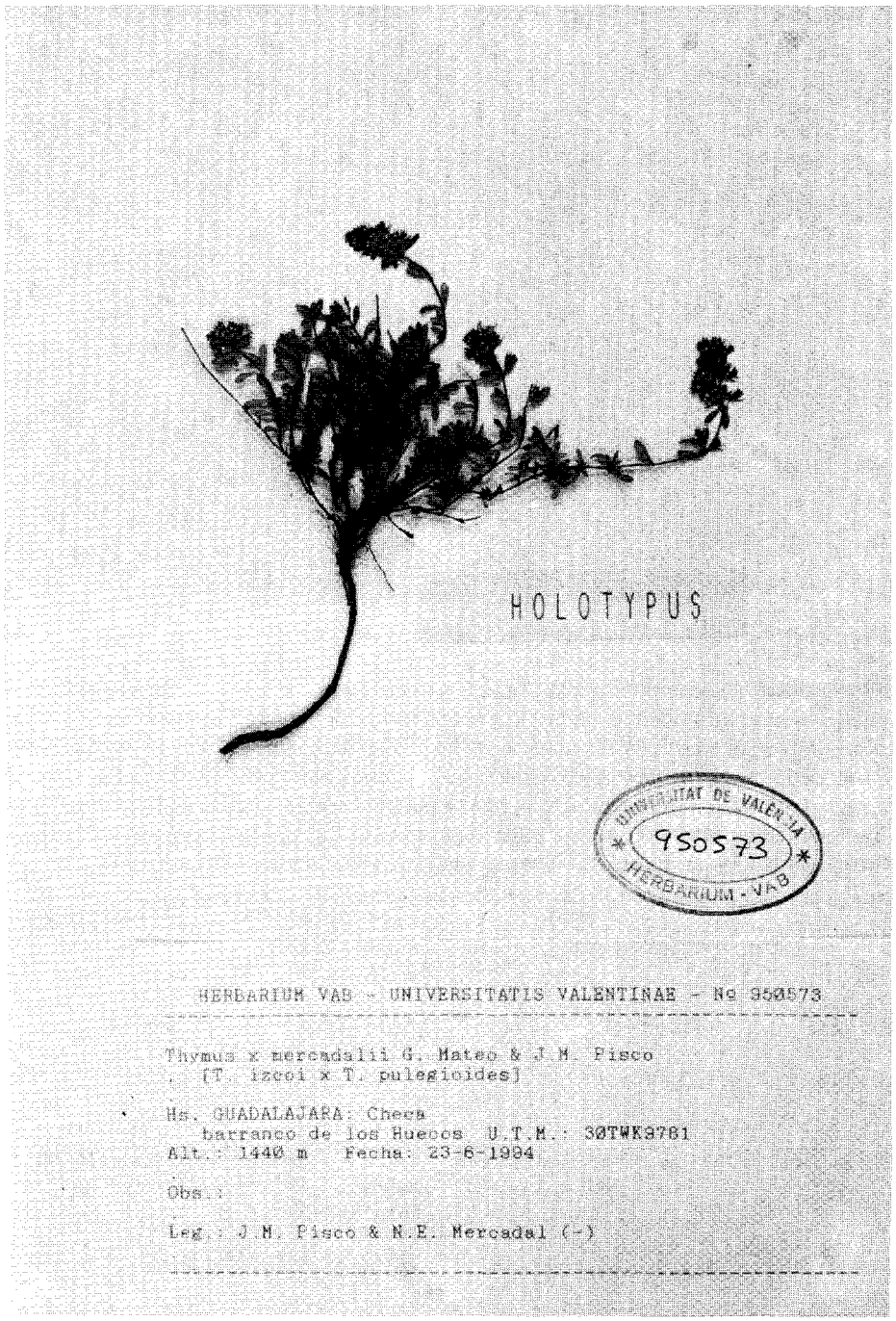

Fig. 1. Holotypus of *Thymus* x *mercadalii* G. Mateo & J. M. Pisco.

Fig. 2. Particular of *Thymus* x *mercadalii* G. Mateo & J. M. Pisco.

Apart from the morphological aspects which have brought us to consider these populations here described as being of a new hybrid, the fact that in the above-mentioned area we have gathered material from both species which we consider to be the parents, gives added weight to this conclusion. This material was gathered in meso-xerophytic siliceous pastures, environment in which both parental species are normally present.

To facilitate comparison between the three taxa in question, we present the following table of characteristics observed in the populations found in the above-mentioned area:

	T. izcoi	***T. x mercadalii***	***T. pulegioides***
Stock	moderately woody, ± 2 mm	slightly woody, ± 2 mm	hardly woody, ± 1 mm
Main stem	procumbent	ascending	ascending
Flowering stems	(1) 2-4 (5) cm	(2) 4-6 (8) cm	5-15 cm
Stem angles	all four densely tomentose	two densely toment., two laxly toment.	two glabrescent, two densely toment.
Leaves: petiole	absent	0-1 mm	1-2 mm
Leaves: blade	linear-spathulate, 3-5 mm	linear-spathulate, 4-7 mm	elliptic, (5) 8-10 (15) mm

	T. izcoi	*T. x mercadalii*	*T. pulegioides*
Leaves: nerves	secondary nerves obscure	secondary nerves apparent	secondary nerves prominent
Leaves: consistency	coreaceous-fleshy	membranous-coreaceous	membranous
Inflorescence	glomerule, 8-12 mm	somewhat elongate, 1-2 cm	clearly elongate, 1.5-3 (5) cm
Calyx	4-5 mm	3-4 mm	2.5-3.5 mm
Corolla	6-7 mm	5-6 mm	4-5 mm

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