

**STUDIES ON CRUCIFERAE: XI. ERUCASTRUM IFNIENSE
GÓMEZ CAMPO, SP. NOV., AND ITS ALLIES**

por

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Abstract

GÓMEZ-CAMPO, C. (1984). Studies on Cruciferae: XI. *Erucastrum ifniense* Gómez-Campo, sp. nov., and its allies. *Anales Jard. Bot. Madrid* 41(1):83-85.

A new taxon from East Morocco (Sidi Ifni region in the Atlantic coast) is described as *Erucastrum ifniense* Gómez-Campo, sp. nov. One of its allies, *Erucastrum varium* subsp. *brevirostre* Maire is given specific rank as *Erucastrum brevirostre* (Maire) Gómez-Campo.

Resumen

GÓMEZ-CAMPO, C. (1984). Estudios sobre crucíferas: XI. *Erucastrum ifniense* Gómez-Campo, sp. nov., y táxones relacionados. *Anales Jard. Bot. Madrid* 41(1):83-85. (En inglés).

Se describe el *Erucastrum ifniense* Gómez-Campo, un nuevo taxon de Marruecos occidental (región de Sidi Ifni en la costa atlántica). Se propone asimismo el rango específico para el relacionado *Erucastrum varium* subsp. *brevirostre* Maire, que pasa a ser *Erucastrum brevirostre* (Maire) Gómez-Campo.

In a botanical expedition through the area of Tiznit-Goulumine, in the Atlantic coast of Morocco south of Agadir, a specimen was collected whose facies was that of an annual *Erucastrum* (of the type of *E. varium* sensu lato). Viable seeds were also collected and stored in the seed bank of our laboratory (GC-2979).

The seeds exhibited a deep dormancy, so that for a time we were unable to obtain living plants; treatments with gibberellic acid were later effective in breaking such dormancy. During several seasons we cultivated this plant side by side with other possible relatives. Soon it became apparent that its affinities were much more on the side of Canarian *Erucastrum* species (*E. cardaminoides* and *E. canariense*) than toward continental *E. varium* subspecies (with the exception of subsp. *brevirostre*).

The chromosome number of the new plant was $2n=18$ (Harberd pers. communication), the same which has been found in the Canarian species. The range of variation of the annual *E. varium* between Algeria and Morocco has been shown to have $2n=14$, again with the only exception of the morphologically distinct *E. varium* subsp. *brevirostre* from Western Morocco which has $2n=18$.

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The most distinctive character of the Sidi Ifni plant is the presence of a gynophore approx. 1 mm long at the base of the silique. A developed gynophore exists in some *Diplotaxis* species (*D. harra*, *D. tenuifolia*) and also in some *Brassica* species (*B. elongata*) but it had been never reported before for *Erucastrum*. It is usually regarded as a primitive character.

Seed color is black in *E. canariense* and *E. cardaminoides* but pale brown to ochre in the Sidi Ifni specimens. This can be interpreted as a mimetic adaptation to soil color which is most often black in the volcanic lavas of the Canary Islands and much lighter in the sub-desertic coastal plains of the continent.

Distinctive characters with respect to *E. cardaminoides* are summarized in table I.

TABLE I

DIFFERENTIAL CHARACTERS BETWEEN *E. CARDAMINOIDES* AND *E. IFNIENSE*

<i>E. cardaminoides</i>	<i>E. ifniense</i>
Gynophore inconspicuous, less than 0,3 mm	Gynophore approx. 1 mm
Seeds black	Seeds pale brown
Leaf sinuses never reaching the mid-nerve	Leaf sinuses often reaching the mid-nerve
Trichomes 1 mm long	Trichomes 0,3 mm long
Cotyledons deeply emarginate	Cotyledons only shallowly emarginate
Volcanic soils in the Canary Islands	Subdesertic plains in Southwestern Morocco
Mature seeds deeply dormant	Mature seeds will easily germinate

In our opinion, the differences are important enough (specially the presence of a developed gynophore) to propose a new species as follows:

***Erucastrum ifniense* Gómez-Campo, sp. nov.**

Planta annua, ramosa, habitu Erucastrum cardaminoididis sed foliis saepe profunde partitis et leviter hispidis, pilis brevioribus. Gynophorus praesens, 1 mm longus. Semina fusca cotyledonibus leviter emarginatis.

35 km east of Sidi Ifni (in S. West Morocco) on roadsides. June 8, 1974. *Typus* MA 258176.

The new species might be viewed as a continental vicariant of the insular *E. canariense* or *E. cardaminoides*; it is no wonder that it has been found in the «Macaronesian» floristic region of Morocco. In the vegetative and floral stages it can be easily confused with some other herbs which are present along the Moroccan Atlantic coast (i.e. *Diplotaxis virgata* or *Diplotaxis sifolia*). A record by Christ of *E. cardaminoides* «between Mazagan and Casablanca» is too far to the north and should probably be referred to *D. sifolia*.

We take this opportunity to propose a specific status for the plant described under *Erucastrum varium* subsp. *brevirostre* Maire, once it has appeared clear to us that it shows closer morphological and karyological

affinities toward the Macaronesian group. This group is mainly defined by its short style (less than 2 mm) which either contains no seeds or is rarely 1-seeded.

***Erucastrum brevirostre* (Maire) Gómez-Campo, stat. & comb. nov.**

Basionym: *Erucastrum varium* Durieu subsp. *brevirostre* Maire in Braun-Blanquet & Maire, Bull. Soc. Hist. Nat. Afrique N. 16:23 (1925).

A KEY TO THE ANNUAL SHORT STYLED $n=9$ *ERUCASTRUM* SPECIES

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|--|---|---|
| 1. Inflorescence axis in zig-zag | <i>E. brevirostre</i> (Maire) Gómez-Campo, Central & Western Morocco | |
| 1. Inflorescence axis straight | | 2 |
| 2. Upper leaves sessile | <i>E. canariense</i> Webb & Berth., Fuerteventura, Canary Islands | |
| 2. Upper leaves petiolate | | 3 |
| 3. Fruit with gynophore 1 mm long. Seeds pale brown | <i>E. ifniense</i> Gómez-Campo, Sidi Ifni (Morocco) | |
| 3. Fruit without or with an inconspicuous gynophore. Seeds black | <i>E. cardaminoides</i> (Webb) O. E. Schulz, Canary Islands | |

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