

STUDIES ON CRUCIFERAE: I. *BRASSICA REPANDA* (WILLD.) DC. SUBSP. *ALMERIENSIS* SUBSP. NOV., A NEW TAXON FROM S. E. SPAIN

by

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Abstract. A new distinct small sized sub-species of *Brassica repanda* (Willd.) DC. from the North of Almería province (S. E. Spain) is described with brief indications on its habitat, its tentative area of distribution and its present conservation status

Resumen. Se describe una nueva subespecie de *Brassica repanda* (Willd.) DC. encontrada al N. de la provincia de Almería. Esta resulta distingüible con facilidad de otras subespecies por su pequeño tamaño, hojas pinnatifidas con tendencia a sub-integrales, tallos en disposición oblicua y frutos en gran parte ascendentes. Se indica brevemente el hábitat, el área de distribución conocida hasta el momento y las perspectivas presentes en el aspecto de conservación.

INTRODUCTION

Extending from the Italian Alps to the Moroccan Great Atlas, there is a complex group of taxa which roughly exhibits *Brassica* characters, but it constantly shows scapiform habit, seedless beak and ovoid or ellipsoidal often sub-flattened seeds. Last two characters should be viewed as primitive in relation to the *Brassica* type. Though most of these taxa have former specific names, at least the European representatives have been treated as sub-species of *Brassica repanda* (Willd.) DC., by HEYWOOD (1964) in Flora Europaea. Ten sub-species are mentioned there, and a few comments are included on the complexity of the group and the circumstance that a number of taxa remain to be adequately described and characterized. Under a similar treatment, the African representatives might well provide with nearly as many additional sub-species. In general, the group combines a deep phylogenetic interest with the existance of important gaps in its

knowledge, so that further studies are highly desirable. This paper contributes with the description of a new distinct sub-species from S. E. Spain (Almería province).

DESCRIPTION (see figure 1)

Brassica repanda (Willd.) DC. subsp. **almeriensis** Gómez-Campo

Herba humilis 5-12 cm alta, biennis aut perennis.

Foliae oblongae in petiolis attenuatae, 2-3 cm longae, pinnatifidae vel subintegrae, in rosula infera simplicia aut breviter ramosa congestae.

Caules floriferi 1-3, aphylli et scapiformes, 10-15 cm longi, a basi oblique divergentes.

Flores 2-8 per caulem, mediocres. Sepala oblonga apice saccata, 4-5 mm longa, saepe laeviter setuloso ciliata. Petala 9 mm longa, sulphurea.

Siliquae breves, 2-2,5 cm longae et 1,5 mm latae, teretiusculae vel subcompressae valvis carenatis, pedicellatae ab obliquibus caulinibus ascendentes aut eos parallelae. Rostro aspermo.

Semina uniseriata oblongo-ovoidea, brunneo-lutea, sub lente subtilissime alveolata.

T Y P E S

Holotypus: Real Jardín Botánico de Madrid, Spain.

Isotyঁpi: Royal Botanic Gardens, Kew, UK. Plant Sciences Laboratory, University of Reading, UK.

RELATIVES

The closest relative of subsp. *almeriensis* might be subsp. *nudicaulis* whose area extends through the steppes of Ciudad Real, Albacete and Cuenca provinces. Both sub-species exhibit a number of coincident characters (flower and seed morphology, fruit shape and structure, pilosity in vegetative parts, etc.) but the differences are very clear and they could be summarized as follows:



Fig. 1.—*Brassica repanda* (Willd.) DC. subsp. *almeriensis* Gómez-Campo. Natural size.

	subsp. <i>nudicaulis</i>	subsp. <i>almeriensis</i>
stems	erect, 30-60 cm (*)	oblique, 10 - 15 cm
leaves	deeply pinnatifid to pinnatisect	subentire to shallowly pinnatifid
fruits	erecto - patent	ascending from the oblique stems

(*) When mature, subsp. *nudicaulis* shows a lodging tendency, but this mostly affects to the taller individuals.

GEOGRAPHY AND HABITAT

Locus: North of Almería province, between Vélez Blanco and Topares (UTM 33S WG 7086; altitude 1.100 m) Flat steppes with stony calcareous soil. In vegetation strongly dominated by *Macrochloa tenacissima* Kth. and *Genista pumila* (Deg. & Rev.) Viehr. subsp. *mugronensis* (Viehr.) Rivas-Martínez.

Other companions:

<i>Paronychia aretioides</i> DC.	<i>Asperula cynanchica</i> L.
<i>Paronychia suffruticosa</i> (L.) Lam.	<i>Odontites tenuifolia</i> (Vahl) Webb
<i>Dianthus</i> sp.	<i>Thymus zygis</i> L.
<i>Matthiola fruticulosa</i> (L.) Maire	<i>Thymus longiflorus</i> Boiss.
<i>Helianthemum pilosum</i> (L.) Pers.	<i>Teucrium polium</i> L.
<i>Astragalus incanus</i> L. subsp. <i>macrorhizus</i> (Cav.) Chater	<i>Teucrium thymifolium</i> Schreber
<i>Linum narbonense</i> L.	<i>Sideritis leucantha</i> Cav.
<i>Linum suffruticosum</i> L. sens amp.	<i>Leuzea conifera</i> DC.
	<i>Carduncellus monspelliensis</i> All.

PRESENT CONSERVATION STATUS

The area covers an irregular band of 1.000-1.500 m × 50-100 m with an estimated total population of 2.000 individuals. An immediate danger is posed by the nearby extraction of sub-soil limestones to be used in the new road to Topares. Seed material has been preserved in the crucifer seed bank which is maintained by this Laboratory (GÓMEZ-CAMPO, 1972). No second locality was found after two days of intensive

sive exploration of the area between María, Vélez Blanco and Cañadas de Correpta.

ACKNOWLEDGEMENT

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LITERATURE

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