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NEW OR NOTEWORTHY TAXA OF ARGENTINEAN AND CHILEAN BRASSICACEAE (CRUCIFERAE)

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Abstract. Al-Shehbaz, I. A. 2006. New or noteworthy taxa of Argentinean and Chilean Brassicaceae (Cruciferae). *Darwiniana* 44(2): 359-362.

Menonvillea filifolia subsp. *marticorenae* is described, and its distinguishing characters from *M. filifolia* subsp. *filifolia* are given. The genus *Grammosperma* is reduced to synonymy of *Sarcodraba*. A key to the four species of *Sarcodraba* is presented, and the new combination *S. dusenii* is proposed. *Skottsbergianthus sorianoi* is lectotypified and reduced to synonymy of *Xerodraba colobanthoides*.

Keywords. Argentina, Brassicaceae, Chile, *Grammosperma*, *Menonvillea*, *Sarcodraba*, *Skottsbergianthus*, *Xerodraba*.

Resumen. Al-Shehbaz, I. A. 2006. Taxones nuevos o relevantes de Brassicaceae (Cruciferae) argentinos y chilenos. *Darwiniana* 44(2): 359-362.

Se describe *Menonvillea filifolia* subsp. *marticorenae*, destacándose sus caracteres diferenciales frente a *M. filifolia* subsp. *filifolia*. El género *Grammosperma* se incluye en la sinonimia de *Sarcodraba*. Se presenta una clave para la identificación de las cuatro especies de *Sarcodraba*, proponiéndose la nueva combinación *S. dusenii*. Se lectotipifica *Skottsbergianthus sorianoi* y se la incluye como sinónimo de *Xerodraba colobanthoides*.

Palabras clave. Argentina, Brassicaceae, Chile, *Grammosperma, Menonvillea, Sarcodraba, Skottsbergianthus, Xerodraba*.

INTRODUCTION

During work on the Brassicaceae for the Checklist of the Southern Cone, it became evident that some novelties need to be described and nomenclatural changes need to be proposed in order to make the names available for that Checklist. This was facilitated by a visit of the author to several key herbaria in Argentina and Chile, as well as by the examination of extensive material in North American and European herbaria. However, this paper deals only with the genera *Grammosperma* O.E. Schulz, *Menonvillea* DC., *Sarcodraba* Gilg & Muschl., *Skottsbergianthus* Boelcke, and *Xerodraba* Skottsb.

SARCODRABA AND *GRAMMOSPERMA*

The similarities between *Grammosperma* (monotypic) and *Sarcodraba* (3 spp.) are remarkable in almost every morphological aspect. Both have woody caudex, non-rosulate, fleshy basal leaves, dentate cauline leaves, few- to several-flowered racemes, thick fruiting pedicels, frequently pubescent filament bases, confluent nectar glands, similar number of ovules per ovary, thick fruit valves, relatively large seeds (to 2.5 mm long), and incumbent cotyledons. Both genera grow in Patagonia (Boelcke & Romanczuk, 1984), though *S. andina* O.E. Schulz is distributed in La Rioja and San Juan provinces. The latter species was placed by Ravenna (1971) in the monotypic *Ateixa* Ravenna, but it is evident that this action is unwarranted because *Atiexa* is indistinguishable from *Sarcodraba* in every morphological character. Schulz's (1929) original placement of the species in *Sarcodraba* should be maintained, and Appel & Al-Shehbaz (2003) reduced *Ateixa* to synonymy of *Sarcodraba*.

Schulz (1936) placed *Grammosperma* in the tribe Lepidieae and *Sarcodraba* in the tribe Sis-

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ymbrieae, but this disposition is artificial and was based solely on the differences in the fruit compression. *Grammosperma* has angustiseptate fruits whereas *Sarcodraba* has terete fruits. However, this difference alone is insignificant and, as shown by several workers (e.g., Appel & Al-Shehbaz, 2003; Koch et al., 2003; Mitchell-Olds et al., 2005; Al-Shehbaz et al., 2006), numerous genera of the family have both fruit types, including the South American *Physaria* (Nutt.) A. Gray (O'Kane & Al-Shehbaz, 2004). For these reasons, *Grammosperma* is reduced herein to synonymy of *Sarcodraba*, and the new combination *S. dusenii* is proposed.

SARCODRABA Gilg & Muschl., Bot. Jahrb. Syst. 42: 468. 1909. TYPE: *Sarcodraba karraikensis* (Speg.) Gilg & Muschl., Bot. Jahrb. Syst. 42: 469. 1909.

Grammosperma O.E. Schulz, Notizbl. Bot. Gart. Berlin-Dahlem 10: 562. 1929, syn. nov. TYPE: *Grammosperma dusenii* O.E. Schulz, Notizbl. Bot. Gart. Berlin-Dahlem 10: 562. 1929.

Ateixa Ravenna, Anales Mus. Hist. Nat. Valparaiso 4: 117. 1971. TYPE: *Ateixa andina* (O.E. Schulz) Ravenna, Anales Mus. Hist. Nat. Valparaiso 4: 119. 1971.

The four species of *Sarcodraba* are distinguished by the following key:

1. Plants subscapose; cauline leaves absent; fruits linear-oblong . . . . . *S. subterrana*
1. Plants with distinct stems; cauline leaves present; fruits ovate to oblong or suborbicular 2
2(1). Leaves sessile, at least upper ones auriculate to amplexicaul; septum absent; filaments glabrous . . . . . *S. andina*
2. Leaves short petiolate, not auriculate; septum present; filaments pubescent at base 3
3(2). Fruits terete, 5-7(-8) mm long, style 1-1.7 mm long; sepals pubescent with branched hairs . . . . . *S. karraikensis*
3. Fruits angustiseptate, 10-14 mm long, style to 0.7 mm long; sepals glabrous . . . . . *S. dusenii*

Sarcodraba dusenii (O.E. Schulz) Al-Shehbaz, comb. nov. *Grammosperma dusenii* O.E. Schulz, Notizbl. Bot. Gart. Berlin-Dahlem 10: 562. 1929. TYPE: Argentina. Santa Cruz, Lago Argentino, ca. 1000 m, 30-I-1905, *P. Dusén 5749* (holotype S!; isotype BAA!).

MENONVILLEA

Among the common annual species of *Menonvillea* in Chile, *M. filifolia* Fisch. & C.A. Mey. can easily be divided into two distinct subspecies based on floral size. The populations with smaller flowers are described herein as the new *M. filifolia* subsp. *marticorenae*.

Menonvillea filifolia Fisch. & C.A. Mey. subsp. **marticorenae** Al-Shehbaz, subsp. nov. TYPE: Chile. Región IV. Coquimbo, carretera Panamericana, 89 km al norte de los Villos, 31º 11' S, 71º 36' W, 250 m, 13-X-1963, *C. Marticorena & O. Matthei 122* (holotype CONC!).

Differt a Menonvillea filifolia var. filifolia sepalis brevioribus [1.5- 2.5(- 3) mm], non vel leviter saccatis; petalis brevioribus [2.5- 4.5(- 5) mm]; antheris brevioribus [(0.4-)0.5- 0.8 mm], ovatis.

Annual herbs; stems simple or branched at base. Sepals oblong, not saccate at base, 1.5-2.5(-3) mm long; petals narrowly spatulate, 2.5-4.5(-5) mm long, obscurely papillate at base; anthers ovate, (0.4-)0.5-0.8 mm long. Fruiting pedicels ascending, straight to slightly arcuate, (1.5-)2-7(-9) mm long. Fruits longer than broad; valves 2.5-4(-4.5) mm long, 2-winged, with oblong callus and crenate to entire wings.

Menonvillea filifolia subsp. *marticorenae*, which honors Professor Clodomiro Marticorena, an outstanding Chilean botanist, is similar to *M. filifolia* subsp. *filifolia* in fruit morphology, but differs significantly in flower size (see below). Both subspecies grow together only in regions III, IV, and V, but I have not seen intermediates between them. Unfortunately, hardly anything is known about their ecological preferences or breeding systems. The two subspecies can easily be separated by the following key:

1. Sepals 4-5(-6) mm long, strongly saccate; petals 7-11(-12) mm long; anthers narrowly oblong, (0.9-)1-1.2(-1.3) mm long . . . . . *M. filifolia* subsp. *filifolia*
1. Sepals 1.5-2.5(-3) mm long, not or only slightly saccate at base; petals 2.5-4.5(-5) mm long; anthers ovate, (0.4)0.5-0.8 mm long . . . . . *M. filifolia* subsp. *marticorenae*

Paratypes

CHILE. **Región II.** Laguna Verde, Oct. 1960, *Zöllner s.n.* (SI). **Región III.** Estación Castilla, *Barros 2767* (SI). **Región IV.** Coquimbo, Carretera Panamericana, cerros frente al Tofo, 29º26´S, 71º10´W, *Marticorena & Matthei 194* (CONC, G); Limarí, Ovalle, Talinay, 30º50´S, 71º37´W, *Jiles 1368* (CONC); Quebrada Grande, between Amolanas and Quebrada Teniente, 31º09´S, 71º38´W, *Wagenknecht 46* (CONC), *Wagenknecht 3316* (CONC, SI); Illapel, 10 km N of Huentelauquén, 31º30´S, 71º35´W, *Marticorena et al. 1408* (CONC); Choapa, Huentelauquén, 31º35´S, 71º32´W, *Jiles 2806* (CONC); 8 km N of Los Villos, 31º51´S, 71º31´W, *Marticorena & Matthei 93* (CONC); Cerro Cruz (Limache), *Garaventa 8000* (CONC); Elqui, Rte 5, N of La Serena, ca. 1 km N of entrance to El Tofo mine, 29º30´S, 71º15´W, *Taylor et al. 10669* (CONC, MO); Los Vilos, *Garaventa 4345* (BAA). **Región V.** N of Longotoma, 32º22.5´S, 71º25´W, *Garaventa 8001* (BACP, CONC, SI); Valparaiso, Quebrada El Saldo, 32º31.5´S, 71º25´W, *Montero 3225* (CONC).

XERODRABA AND *SKOTTSBERGIANTHUS*

Schulz (1924) transferred *Xerodraba colobanthoides* Skottsb. to a monotypic section, sect. *Xereudema* O.E. Schulz, of *Eudema* Humb. & Bonpl. He separated the latter genus from *Xerodraba* mainly by having leaves not thickened (vs. thickened) basally, non-saccate (vs. slightly saccate) lateral sepals, and non-fleshy (vs. somewhat fleshy petals). However, a closer examination of extensive material of the two genera shows that these alleged differences do not hold. Boelcke (1982) raised sect. *Xereudema* to the generic rank and gave it the illegitimate later homonym *Skottsbergiella* Boelcke, but he later (in Boelcke & Romanczuk, 1984) re-named it as *Skottsbergianthus*. The last genus was reduced by Appel & Al-Shehbaz (2003) to synonymy of *Xerodraba*.

Boelcke (1982) cited two sheets of the same collection as the holotype for his *Skottsbergiella sorianoi* Boelcke, but these are syntypes and therefore the name needs lectotypification. The differences between the type collections of *Xerodraba colobanthoides* and *S. sorianoi* are quantitative, especially in sepal and petal size, and they represent extremes of a continuum in a poorly collected species. Boelcke (1982) indicated that the latter species also differs in having glabrous vs. pubescent pedicels, but this difference is unreliable because the type collection of *X. colobanthoides* has plants with glabrous or pubescent pedicels. The full synonymy and typification of the last species is given below.

Xerodraba colobanthoides Skottsb., Kongl. Svensk. Vetenskapsakad. Handl. 56(5): 234. 1916. *Eudema colobanthoides* (Skottsb.) O. E. Schulz in Engler, Pflanzenreich IV. 105(Heft 86): 246. 1924. *Skottsbergiella colobanthoides* (Skottsb) Boelcke, Hickenia 1: 309. 1982. *Skottsbergianthus colobanthoides* (Skottsb.) Boelcke, Fl. Patagonica 4a: 526. 1984. TYPE: Argentina, Chubut, Río Senguerr, subandines Patagonien, trochen sandstepp, zwischen Arroyo Apulej und Río Senguerr, ca. 71º W, 21-XI-1908, *Carl Skottsberg 594* (holotype S!; isotypes B!, UPS!).

Skottsbergiella sorianoi Boelcke, Hickenia 1: 309. 1982. *Skottsbergianthus sorianoi* (Boelcke) Boelcke, Fl. Patagon. 4a: 527. 1984, syn. nov. TYPE: Argentina, Chubut, Depto. Escalante, 30 km NW de Comodoro Rivadavia, Ea. Begoña, 7-XI-1946, en la pampa, *A. Soriano 2045* (lectotype BAA! here designated; isotype LP!).

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