Refereed response to earlier publication

Sarcocaulon: genus or section of Monsonia (Geraniaceae)?

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The proposal to consider Sarcocaulon a section of Monsonia (Albers 1996) is evaluated. A decision not to introduce this proposal into the PRECIS database and National Herbarium (PRE) collections is stated and discussed.

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Informal proposals by Albers (1996a) and Albers & Löbbert (1996) suggested that Sarcocaulon DC. is a taxonomically doubtful genus. Albers (1996b), following De Candolle (1824), has now formally proposed the inclusion of Sarcocaulon as a section of Monsonia L. (Geraniaceae). Consequently he transferred all species of Sarcocaulon to Monsonia and in the process published 10 (not 17 as stated) new combinations. Albers (1996b) based his action on a variety of data from the fields of androecium ontogeny, karyology, chemo-taxonomy and DNA studies of numerous species. He also drew parallels between the distribution of morphological characters in Sarcocaulon and Monsonia and the larger genus Pelargonium L’Hér.

At the National Herbarium, Pretoria, we acknowledge the scientific validity of the proposal by Albers (1996b). We have, however, decided not to introduce this proposal into our PRECIS database and our collections. We shall continue to consider Sarcocaulon a sister genus of Monsonia following Moffett (1979). Reasons for this decision include the following:

— Macro-morphological differences between the two genera are clear and well defined. As Albers (1996b) stated ‘Sarcocaulon forms a well-circumscribed taxon’.
— Historically the recognition of two separate genera, as proposed by Knuth (1912), following Sweet (1826), has been universally accepted and implemented. Maintaining them as separate genera will therefore avoid widespread confusion and debate.
— Members of the genus Sarcocaulon are largely confined to deserts and semi-desert regions in southern Africa. In contrast, species of Monsonia are much more widely distributed from the south of the African continent into the Arabian Peninsula and India.
— The presence of succulent, spiny stems found in both Sarcocaulon and Pelargonium (e.g. P. spinosum Willd.) might be an environmentally induced feature. It is, however, significant that this feature is never observed in Monsonia, not even among taxa that share the same geographical distribution as Sarcocaulon.
— The retention of Sarcocaulon as a sister genus of Monsonia promotes nomenclatural stability.

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References