Another look at sulcorebutias

John Pilbeam takes a closer look at the taxa reduced to synonymy beneath Sulcorebutia canigueralii in the second edition of the *Cites Cactaceae Checklist*. Photography by Bill Weightman.

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The second edition of the *CITES Cactaceae Checklist* (CCC2 for short) compiled and edited by David Hunt assisted by members of the International Organization for Succulent Plant Study (the IOS) on the basis of advice from various advisors and collaborators has been recently published.

The genus *Sulcorebutia*, along with *Weingartia* is still firmly placed beneath *Rebutia,* but as I said in my previous article "Well, I still call them sulcos" (BCSJ Vol. 16: 103), and so I am sure do many other lovers of this lovely, rewarding genus. There was, by the way, an interesting article by Günther Hentzschel in the June 1999 issue of *Succulenta*, the journal of the Dutch and Belgian Society, making a case for differentiating *Sulcorebutia* from *Rebutia, Weingartia* and for good measure from *Echinopsis* and *Lobivia*.

As well as the sinking of the genus, the species have been considerably reduced too, and some of the more gargantuan species seem to have swallowed whole many of those dear to the hearts of collectors as desirable and distinguishable taxa.

I should like to feature in this article one of the prime examples of this, the species *S. canigueralii* which is considered to embrace the following "former" species: *S. alba, S albaoides, S brevispina, S. callecallensis, S. caracarensis, S. crispata* (as a subspecies), *S. fischeriana, S frankiana, S. inflexiseta, S. losenickyana, S. pasopayana, S. perplexiflora, S. pulchra* (as a subspecies), *S. rauschii, S. ritteri, S. rubroaurea, S. tarabucoensis, S. vasqueziana and S. zavaletae*.

Some of these names had already been discounted as synonymous with others in the genus, as follows:

S albaoides Brandt. This was one of two plants Fred Brandt received from Karel Knize under the number KK 1266, with white and brown pines respectively: he called the brown spined one *S. albaoides* var. *subfusca*. It seems to me that plants in circulation under this number have more to do with *S. crispata*, as one of its smaller variants.

S. brevispina Brandt. This taxon was reduced by Walter Rausch provisionally to *S. verticillacantha* var. *brevispina* and by me to forma level under this species, following Rausch's lead - it is an individual, delightful, small headed, dark bodied, red flowered plant.

S. callecallensis Brandt. Considered by Brandt to be a species, and raised to that level from its placing by Rausch under his umbrella species as *S. verticillacantha* var. *aureiflora* - it has been better known over the last decade or two under the latter name, although there is a camp calling for its recognition as a species.

S. pasopayana Brandt. A name erected by Brandt for plants of Lau 387, usually regarded as falling beneath *S. perplexiflora* but again there is a splitters' camp in its favour for recognition as a species.

S. ritteri (Brandt) Ritter. Usually regarded as a variety of *S. verticillacantha* var. *albispina* but I cannot now really separate this taxon from *S. crispata*, which it closely resembles, as well as flowering at the same time early, in the season.

S. rubroaurea Brandt. This is yet another description of a variant of *S. verticillacantha* var. *aureiflora*.

Apart from those discussed immediately above, this leaves for consideration *S. alba, S. caracarensis, S. fischeriana, S. frankiana, S. inflexiseta, S. losenickyana, S. perplexiflora, S. rauschii, S. tarabucoensis, S. vasqueziana, S. zavaletae* (all swept into synonymy with *S. canigueralii* subsp. *canigueralii* and the two newly erected subspecies *S. canigueralii* subsp. *crispata* and *S. canigueralii* subsp. *pulchra*.

Figure 1 *S. canigueralii* (believed to be material from Martin Cardenas, MC 5554)

Figure 2 *S. callecallensis/S. verticillacantha* var. *aureiflora* (Lau 389, all yellow flowers)

Figure 3 *S. alba* (WR 472) Note the dense white spines and red flowers, unlike masquerader sometimes seen under this name

Figure 4 *S. crispata/S. albaoides* (JPR 1004, white flowered variant)

5 *S. brevispina/S. verticillacantha* fa. *brevispina* (WR 475)

Figure 6 *S. fischeriana* (HS 79)

Figure 7 *S. crispata* (long spined form)

Figure 8 *S. frankiana* (WR 290)

Figure 9 *S. crispata* (HS 125, in circulation as *S. senilis* nom. nud.)

Figure 10 *S. inflexiseta* (MC 6308)

Figure 11 *S. losenickyana* (WR 477)

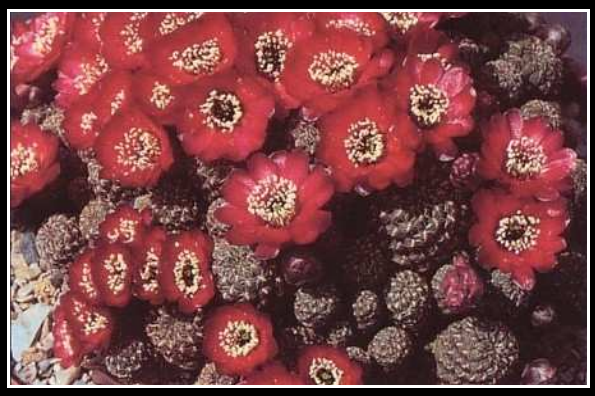

Figure 12 *S. pasopayana/S. perplexiflora* (Lau 387)

13 *S. rauschii* (WR 289, green bodied)

Figure 14 *S. rauschii* (golden spined)

Figure 15 *S. rauschii* (purple bodied)

Figure 16 *S. rauschii* (stitch form ex D. Grigsby)

Looking at their type localities it seems that they are close to each other, at least they are all from the Department Chuquisaca in Bolivia, and this would seem to be the basis for their amalgamation, but the differences from a collector's point of view are considerable as the photographs show, and enthusiasts for this genus are unlikely to take this sweeping synonymizing down.

Taking them one by one:-
S. canigueralii (Cardenas) Buining & Donald. This is in circulation with either green or purplish-brown stems, and is an easy to grow, heavily clustering, low-growing plant, with knock-out flowers in red with a more or less heavily yellow-coloured throat, sometimes to the extent that just the ends of the inner petals are red.

S. alba Rausch. This has proved somewhat difficult in cultivation, and the density of the white spines (twice as many as *S. canigueralii* in its traditional guise) completely obscures the plant body. It is much slower growing and makes a much smaller clump, about the same in height as width.

S. *brevispina Brandt* (or *S. verticillacantha* fa. *brevispina* if you prefer). I have not found this very easy to grow, and it takes time to make even a small clump of its smaller than most, dark stems; its bright red flowers are distinctive.

S caracarensis (Cardenas) Donald. This has been almost unknown since its original description in 1970, but there are plants in cultivation, and I have struggled to keep one growing for some 10 years or more, but have not yet produced a flowering plant. I have spoken severely to the best plant I have, and pointed out the importance of the next flowering season, and it has promised to do its best for the millenium.

S. canigueralii subsp. *crispata* (*S. crispata* Rausch) This is such a consistently early flowerer for me over the years that I find it difficult to accept as belonging here in spite of the geography. Some confusion has occurred with the placing under this taxon of similar but much smaller stemmed plants, less “crispy” spined (Brandt's *S. albaoidea* and var. *subfusca*). Most well-sourced plants make stems in cultivation three or four times the size of *S. canigueralii,* and the distinctive, long, curling, whitish spination is nothing like it either; it also flowers earlier than all the others listed here.

S. fischeriana Augustin. Described in 1987, it has become somewhat slowly available commercially, perhaps because it is quite slow growing. It is superficially similar to S. alba, with its white, spination and red flowers.

S. frankiana Rausch. Described in 1970 at the same time as six other new species in the genus, this plant differs from most others in question here in its much sparser spination, which exposes the stems much more. The flowers are varying shades of magenta.

S. inflexiseta (Cardenas) Donald. This was described at the same time as *S. caracarensis*, and was equally difficult to obtain, until plants appeared, purporting to be original material from Cardenas (MC 6308), and it is now getting around.

S. losenickyana Rausch. Some plants in circulation under this name do not match up to Rausch's original description, which was of a plant with quite thick spines, overlapping and stiff, somewhat projecting, nothing remotely like *S. canigueralii* I have to say; flowers are red.

S. perplexiflora Brandt. This was described in an obscure publication not easily availed of, based on Rausch's WR 593 and 599, which have short, wispy spines lying back on the dull brownish green stem, forming large mounds, not keeping low like *S. canigueralii*, and with dark red flowers.

S. canigueralii subsp. *pulchra* (*S. pulchra* (Cardenas) Donald) The identity of this taxon, originally described by Cardenas in 1970 with an appallingly bad monochrome photograph has been a mystery for years. Rausch opted for his WR 593 and 599 as representing it, but Brandt erected the name *R. perplexiflora* for these collections reflecting his concern over the differing flower from the description of *S. pulchra*, which was described as having pale magenta flowers. The latter position was generally accepted, and the finding by Heinz Swoboda of HS 78 and 78a was embraced by enthusiasts as equating to Cardenas's *S. pulchra*, with much more going for the short spined HS 78 than its long spined brother HS 78a. However in CCC2 the popular and widely cultivated *S. rauschii* has been selected as the candidate to for this name. It has to be said the two are regarded by collectors as quite different.

S. rauschii Frank. As indicated immediately above, the consistent sinking in CCC I & 2 of this well known and well loved species, firstly beneath *S. pulchra*, but now, it seems, under *S. canigueralii* must have mystified enthusiasts. From the early 1970s, when this species first appeared under the number WR 289 in either a green or purple bodied form, it has been extremely popular. The water has been somewhat muddied over the years by the selection of numerous forms with

Comparison of the more commonly met taxa reduced beneath *Sulcorebutia canigueralii* in *CITES Cactaceae Checklist 2*

Taxon	Stem	Spines	Flower	Reported locality
S. canigueralii ssp. canigueralii	1cm tall, 2cm wide	Fine, 11-14, to 2mm, base brown, whitish above, 1 or 2 more central, but not projecting	Red and yellow, 3-4cm long	Sucre 2,800m alt.
S. alba	2cm tall, 3.5cm wide	20-24, 3-4mm, white, brown at base, yellowish brown tipped, all radial	Red, 3cm long and wide	Chiqui Tayoj on road from Sucre to Los Alamos. 2,900m alt.
S. brevispina	4cm tall, 3cm wide	14-18, 2-3mm, white with brown base, all radial	Blodd red, 3cm long and wide	In region of Sucre, Obispo. No altitude recorded
S. callecallensis	2cm tall, to 2.5cm wide	10-12, 3-5mm, white or yellowish, brown at base, all radial	Yellow, or yellow with orange or red margins, 3cm long, 4cm wide	Sucre near Tarabuco 3,400m alt.
S. (canigueralii ssp.) crispata	2.5cm tall, 3.5cm wide	20-30, 4-20mm long, glassy white to red-brown, all radial	Pale to dark magenta, 3cm long and wide	Tomina, ca 10km from Padilla. 2,400m alt.
S. fischeriana	1.5-2.8cm tall and wide	12-18, 2-5mm, white, all radial	Red, 3-3.5cm long, 2.5-3cm wide	SW of Puente Arce, S of the Rio Caine, 2,800m alt.
S. frankiana	3-4cm tall, 5-6cm wide	10-18, to 10mm, brown to red-brown to almost black, all radial	Dark or pale magenta, sometimes more purple or lilac with yellow throat, 4cm long	Sucre, road behind Los Alamos, 2,700m alt.
S. inflexiseta	1-2.5cm tall, 3.5cm wide	12-18, whitish yellow, blackish at base, 3-19mm, all radial	Magenta with whitish throat, 3cm long, 2-3cm wide	Near Presto in the Cara-Cara Mountains. 3,000m alt.
S. losenickyana	6cm tall and wide	Radials 14-16 or more, to 25mm, yellow or brown to almost black; centrals when present (in older plants) 1-4, similar but stronger, c. 2cm	Red, 3cm long, 4cm wide	Near road from Sucre to Ravelo, 3,250m alt.
S. perplexiflora	3cm tall and wide	About 10, wispy, brownish yeallow, all radial	Red, 3-4cm long, 3cm wide	Sucre. No altitude recorded
S. (canigueralii ssp.) pulchra	2-3cm tall, 4-4.5cm wide	10-11, 3-5mm, grey or yellowish brown, all radial	Magenta or pale magenta, 5cm long, 2.5cm wide	Between Rio Grande and Presto. 2,400m alt.
S. rauschii	1.5cm tall, 3cm wide	11, 1-3mm, black, (dark brown or yellow), all radial	Magenta pink or purple with paler throat, 3cm long and wide	Near Zudanez. 2,700m alt.
S. tarabucoensis	1.5cm tall, 2cm wide	8-12, 3-6mm, yellowish to blackish-brown, all radial	Dark red with yellow throat, 3cm long and wide	Sucre. 3,500m alt.
S. vasqueziana	1.5cm tall, 2cm wide	12-16, to 15mm, yellow with reddish base, all radial	Magenta, or red with yellow throat, 2.5cm long and wide	Sucre, near road to Los Alamos. 2,950m alt.
S. zavaletae	1.5cm tall and wide	10 or more later, 2-3mm, white with brown base, all radial	Magenta red with paler throat, 4cm long, 3.5cm wide	Rio Grande Basin. 2,000m alt.

varying body colouring and spination, from the light green of the original, and probably the slowest growing, through dark green and various depths of colouring favouring the purple end of the spectrum, and with spine colours varying from black to brown to golden yellow. I have now accumulated nearly 20, which I fondly regard as differing from each other.

S. tarabucoensis Rausch. Here is another rum do, with a very individual little plant, with sparse, longish, curling, untidy spination, and little resemblance to *S. canigueralii* or any other under consideration here, except perhaps for the red flowers with a hint of a yellow throat; a purple bodied variant of this species has appeared in recent years which has much more appeal than the fairly dull green form usually seen.

S. vasqueziana Rausch. This is a fairly heavily, golden spined plant with overlapping spines on the smallish bodies, presenting some difficulty in growing to more than just a small, palm of the hand sized clump.

S. zavaletae (Cardenas) Backeberg. Of the bunch above, this is perhaps the closest in appearance to S. canigueralii, except for its somewhat slower growth and magenta flowers.

I have set out a table comparing the characters of the various taxa (see above) and have included as many photographs of the species in question as the editor will allow, for your consideration. I cannot see that such, gross lumping is helpful for those of us who grow these plants and need handles for those which are so divergent from each other in appearance that

Figure 17 *S. pulchra* (HS 78)

Figure 18 *S. pulchra* (HS 78a)

their familiar names are easily applied on sight. The various authors of these descriptions made them usually with a good knowledge of the plants in the field and in cultivation, and did not do so, I should think, without considerable deliberation. There has been no attempt in print apart from the Checklist to justify these sweeping changes proposed. It seems just too easy to say that they are all the same because, maybe, they come from the same neck of the mountains, especially in such terrain and given the very local nature of seed dispersal of these plants. Perhaps collectors will adopt the expedient I suggested in my *Rebutia* book, and hang on to the names above in quotation marks after the allocated umbrella name, e.g. *S. canigueralii "vasqueziana"*. Few collectors will, I think, discard their so-called synonymous plants, and it would be an awful shame if any collecting enthusiast for this genus got rid of them only to find in a few years time that some other authority resurrected them all. What is last said is not by any means necessarily correct, and as enthusiasts for this genus we are perfectly at liberty to disregard the findings of the CITES Cactaceae Checklist (which is after all primarily aimed at the authorities with the thankless and difficult task of enforcing the CITES requirements on import and export). We can ignore the whole shebang and retain our old names, or do as I suggest we might above; perhaps the middle road with CCC2 findings recorded on the label is the best way. The relationships of these plants can then be compared in individual collections, and dare I suggest it, recorded by their owners in this journal.

I would not like to be the customs officer attempting to identify *Sulcorebutia/Rebutia canigueralii were it* to be promoted to Appendix 1 of CITES and thus forbidden entry, in the light of the above vastly differing hotchpotch of variants, if that is what they are!

Footnote: I should add that my inclusion in CCC2 in the panel of advisors and collaborators was entirely confined to the genus Mammillaria, which, as we used to quaintly say in my youth, is a different kettle of fish altogether.

Figure 19 *S. tarabucoensis* (WR 66)

Figure 20 *S. vasqueziana* (WR 284)

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