

Notes on Crassulaceae: 2

A. *Sedum craigii* and Jürgen Lautner

S*edum craigii* Clausen is a beautiful but little-grown succulent. Its trailing or pendent stems are densely covered with large, thick, nearly egg-shaped, purple leaves. The flowers are untypical of *Sedum*, being campanulate, with only the apical half of the petals expanding; these flowers closely resemble those of *Sedum suaveolens*¹ Kimn., though vegetatively the two species differ greatly. In describing the latter, I included it in Clausen's section *Craigia* of subgenus *Pachysedum*; section *Craigia* contains only these two species. *S. craigii*

has a gametic chromosome count of $n = 30$; in *S. suaveolens* they total around 320, reputedly the highest known number for any seed-bearing plant.

Sedum craigii was first discovered by RT Craig and George Lindsay in 1939. The account² of their adventurous trip is well-worth reading today. They had spent some two weeks traveling from Guirocoba, Sonora, toward Barranca del Cobre (Copper Canyon) in Chihuahua. There were then no roads connecting these areas (now, 70 years later, there are still none). They organized a pack-train of twelve mules and hired a guide and three helpers. Riding the mules, or walking when the trail became rough, Craig and Lindsay made their way day after day through botanically unexplored forests and mountainous regions. They found two new cacti, *Mammillaria craigii* Lindsay and *M. lindsayi* Craig, each named for the one who had first seen the species.

On April 4 they found themselves on the brink of the spectacular Barranca del Cobre (often compared to the Grand Canyon), with the Río Urique visible far below. Exploring among the cliffs, they found a minute succulent they later gave to the U.C. Botanical Garden, Berkeley, where the Manager, Jack Whitehead, flowered and identified it as *Sedum filiferum*. He later placed it³ in its proper genus as *Graptopetalum filiferum* (S Watson) Whitehead.

At the same locality, one of the two boys in the party, Champion (pronounced chawmp-ec-OWN), found a large plant resembling *Graptopetalum amethystinum*. It turned out to be a new species of *Sedum* when it flowered for Robert Clausen at Cornell; he later published⁴ it as *S. craigii*. The species has persisted in cultivation ever since, but during the ensuing 60 years no other wild collection has been reported. Lindsay published no photos of the species in habitat, the exact location of



FIGURE 1 *Sedum craigii*, Barranca de Cobre, Chihuahua. Photo by J. Lautner.



FIGURE 2 Barranca de Cobre, with the village of Urique below. Photo by J. Lautner.

which has remained unclear.

Early in 2009, Jürgen Lautner (1945–2009), formerly of the botanical garden in Göttingen, Germany, was botanizing in Chihuahua and rediscovered *S. craigii*. His photo (Fig. 1) is the first to be published showing it in habitat. The original Craig and Lindsay collection forms long, hanging stems in cultivation, so it is not surprising that his photos show cliff-dwelling, pendent plants. In one of several letters to me, Herr Lautner stated that due to the attractiveness of the species and its easy access from a road, publishing the exact locality might endanger the wild population. However, it is probably not far from where Craig and Lindsay first found it; Lindsay's Figure 352 shows a view of the Río Urique where *Graptopetalum filiferum*, *Mammillaria craigii*, and *Sedum craigii* grew on cliffs above the river. Lautner's photo (Fig. 2) presents a similar view, with the village of Urique below.

I had been corresponding with him since 2003, publishing an article⁴ on two of his discoveries: a new variety, *Graptopetalum saxifragoides* var. *fari-nifera* Kimn., and the first record of a locality for *Sedum orbatum* Moran & Meyrán. In April, 2008, I visited the Alter Botanischer Garten of Georg August University, Göttingen, in the company of

Ralf Bauer and Rudi Dorsch. My main purpose was to see the garden's large collection of Crassulaceae gathered in Mexico by Lautner. After meeting him, we split into two groups. He conducted Rudi and Ralf through the rich collection of epiphytic cacti—mostly also collected by him—while Garden Curator Dr. Michael Schwerdtfeger led me to the Crassulaceae glasshouse. As I examined the many plants, I felt like a boy in a candy shop, especially when he offered to send me cuttings in exchange for plants from my own collection; a list of desiderata was quickly compiled. In August, 2008, a box of cuttings of 58 species arrived, accompanied by the necessary German export and phytosanitary certificates and a USDA address label. The research value of these plants is largely due to the recorded locality data I received from Herr Lautner. My thanks are due to Dr. Schwerdtfeger and to the famous nursery, Kakteen-Haage, which obtained the permits and shipped the plants.

I have been looking forward to identifying these plants and perhaps describing some as new taxa. While working with Jürgen on this article I was dismayed to learn that he had passed away on October 2, 2009, at the age of 64; I will therefore no longer be able to communicate with him



FIGURE 3 Jürgen Lautner and *Tillandsia yutaninoensis*. Photo by R. Ehlers. FIGURE 4 *Echeveria laui* propagated at a government nursery in Oaxaca, Mexico. Photo by M. Kimmach.

about his discoveries.

His wife, Brunhilde Janke, has sent me some facts about his life. He was born on October 14, 1945, in Erlangen, Germany, and had four younger sisters. In 1963 he ended his training as a gardener's helper and worked for 18 months at the Erlangen botanical garden. In 1965 he moved to Göttingen and was on the staff of the botanical garden as a Head Gardener until he retired in April, 2009. He was twice-married and had two daughters, one son, three grandsons and a step-daughter.

Besides his horticultural accomplishments, he was a dedicated plant-explorer. Accompanied by several plant enthusiasts, he visited Mexico in 1983, 1985, 1987, 1990, 1992, 1994, 1996, 1998, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, and 2009. He also explored Guatemala in the alternate years of 1991, 1993, 1995, 1997, and 1999, and visited Ecuador in 2008. He was interested in many plant groups, including epiphytic cacti, orchids, and Crassulaceae. However, his favorite plants were the bromeliads, especially the genus *Tillandsia*, *T. lautneri* from Guatemala being one of his discoveries. In 2003 a cactus found by him in Oaxaca, Mexico, was published by Bauer⁵ as *Selenicereus grandiflorus* subsp. *lautneri*.



It was a pleasure to correspond with Jürgen Lautner and to meet him at the garden where he worked for so many years. He was a true plant-lover whose discoveries will continue to enrich collections worldwide.

B. The generic placement of *Echeveria cuicatecana*

Echeveria cuicatecana was published by Reyes, Pérez, and Brachet in 2004⁶. In every character but one the species is a pachyphytum, but the authors do not mention this, nor do they provide an illustration or description of the structure that, if present, would have justified its publication as a species of *Pachyphytum*—the scale-like formations at the base of the corolla lobes; these are found in all other species of the genus.

In April of 2009 I was in Oaxaca with a group of succulent enthusiasts, including John Pilbeam. We visited the Reserva de la Biósfera Tehuacán-Cuicatlán and the government nursery, Vivero La Iberia, where they were growing thousands of leaf-propagated plants of the popular *Echeveria laui* (Fig. 4) for planting at the type locality. There were also a few plants of *Echeveria cuicatecana*, and I asked if I might examine one of its flowers. With the help of a lens from one of our party, I could see that corolla-lobe scales were indeed absent.

The question then arises as to whether the absence of this single character is sufficient reason to include this species in *Echeveria* when all its other characters are those of *Pachyphytum*. It does not seem logical to do so, especially when two echeverias (*E. heterosepala* and *E. dactylifera*, rather distantly related within the genus) have appendages, but are not included in *Pachyphytum*.

It has long been recognized that *Echeveria* and *Pachyphytum* are closely allied. Thiede⁷, who monographed *Pachyphytum* in 2003, remarked on the close affinity of the genus to section *Urceolatae* of *Echeveria*, concluding that "... *Pachyphytum* appears to be nested within *Echeveria*, rendering the latter paraphyletic. This would call for recognizing *Pachyphytum* as a mere (though characteristic) section of *Echeveria*."

It may be that such a merging of *Pachyphytum* with *Echeveria* will be delayed or never take place. In the meantime, for consistency's sake, I am transferring *Echeveria cuicatecana* to the genus that I believe contains its closest allies.

Pachyphytum cuicatecanum (Reyes, Pérez &

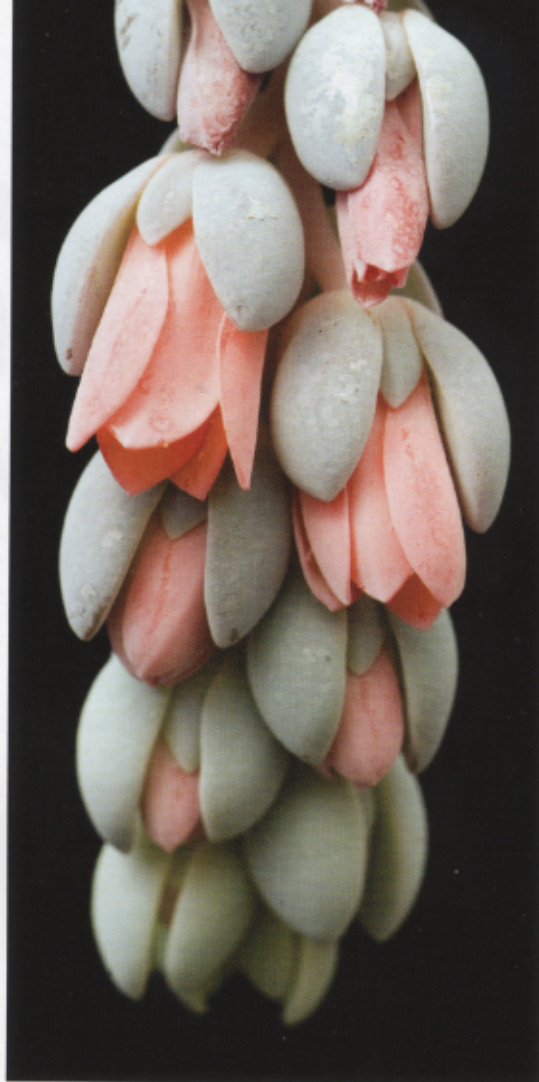


FIGURE 5 *Pachyphytum cuicatecanum* photographed by the Kristens at UNAM, Mexico City.

Brachet) *Kimnach*, *comb. nov.*

Echeveria cuicatecana Reyes, Pérez & Brachet, *Cactáceas y Suculentas Mexicanas* 49: 80-81. 2004. 🌵

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