

Eriosyce spectabilis F. Kattermann, H.E. Walter & J.C. Acosta, species nova

In 1977, on my first field expedition to Chile with Walter Jung as my guide, we visited the family of Juan who was one of Walter Jung's co-workers at the University greenhouse in Santiago. His family was operating a small goat herd in just off Quebrada Carrizal. Juan also prospected for gold in the same area and did a lot of climbing in the mountains to find better sites. He had found some cacti at the highest mountain tops above Quebrada Carrizal, and collected a few plants which Walter was kind enough to give to me, with the comment that he would return

in the future and get some for himself. I listed them as FK-62 spec nov. and was successful in cultivating the plants in my greenhouse. Walter Jung distributed plant material to Europe and I distributed seed from my FK-62 plants.

Adriana Hoffmann and Helmut Walter, in *Cactaceas en la Flora Silvestre de Chile*, 2nd ed. 2004 gave this plant the provisional name *Eriosyce spectabilis*, based on plants in Walter Jung's collection.

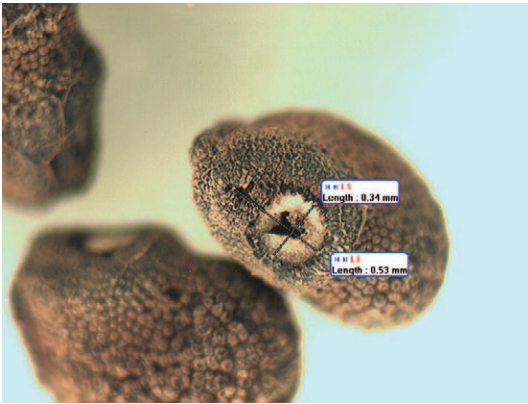
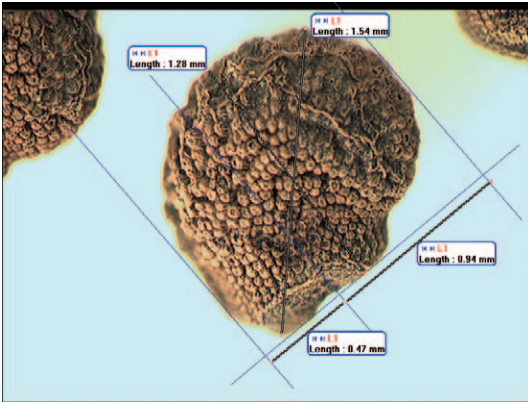
I tried several times to find this plant – the first time was in 1996 with Ted Anderson. From what I know now, we didn't go high enough. It wasn't until my 2009 expedition together with



1 Some of *Eriosyce spectabilis* in the collection of Walter Jung, ex habitat (1979).



2 A plant in habitat (Juan Acosta JA) 3 A flowering plant ex habitate FK 62 4 Flower section. 5 Detail of fruit ex habitate. 6 Detail of tubercle. 7 Close-up of spine cluster. 8 View of root – photograph by Juan Acosta.



9 Lateral view of seed at 40 × magnification. 10 View of hilum at 40 × magnification. 11 Detail of seed surface at 100 × magnification.

H. Walter that we were successful. For part of the trip, Juan Acosta and Florencia Senoret, who had re-discovered the plants in 2007, accompanied us. After trying to rent some horses, Juan and Florencia volunteered to hike to the top. They packed a tent, food and water for a two day hike. They did find the plants, in fact they pitched their tent amongst this elusive cactus. They brought back enough plant material to

make herbarium specimens, which are being prepared by Helmut Walter. 🌵

Latin diagnosis, prepared by Helmut Walter

Stirps dura, glauca ad violacea, 3–5 cm diam.; radix magna rapacea sine collo attenuata; costae 9–11, crenatae; tubercula valde elongata, mentis acutis; areolae elongatae, immersae; 8–12 spinae subflavae, subulatae, usque ad 15 mm longae et 1 mm crassae, pectinatae vel radiantes, centrales subrectae ad curvatae interdum praesentes, saepe atrae; flores 3–5 cm longi, petala longa, ad 28 mm, mucronata; tubus floralis rubrobrunneus, paucis squamis et lanae parvae instructus; fructus doliiformis, ca. 1.5 × 1 cm, non elongatus in aetate, obtectus ut tubus; semina ovata, 1.3–1.5 × 1.1–1.3 mm longa.

Typus: Chile, Atacama, Huasco, highest mountains in the vicinity of Quebrada Carrizal. December 2009, Juan Acosta 704. CONC.

Body hard, usually solitary, 3–5 cm diameter, bluish green, to violet when exposed to the sun, sub-globular to globular, with a slightly sunken, glabrous apex. **Roots** large, napiform, white with a brown brittle external layer, without any neck-like restriction.

Ribs pronounced, 9–11, arranged in orthostichies, deeply crenate, notched into elongated tubercles, these up to 10 mm long and 5 mm wide, with long protruding, acute chins below areoles, with a deep slit-like groove on top.

Areoles narrowly oval, to 5 mm in length and up to 3 mm wide, with dense short wool when young, later more or less naked exposing the base of the spines.

Spines up to 12, stout, variable in color, attitude and thickness; mostly dark honey brown colored, but also black with a violet base in new ones.

radials usually 6–10, pectinate to radiating, more or less recurved to straight, often adaxially flattened and tapering, 6–10 mm in length and about 0.6 to 1 mm diameter; two or more of them smaller, shorter (2–5 mm) and thinner, variable in attitude but always one appressed downward into the groove of the large chin.

centrals sometimes present, 8–15 mm in length, porrect, straight to somewhat curved, ca. 1 mm diam., often black.

Flower arising from new areoles near the apex of plant, 30–50 mm length, pericarpel and hypanthium brownish-green with small scattered scales; scales crowding towards pericarpel, scant on hypanthium, pericarpel ca. 5 mm high, hypanthium to 10 mm; bract scale axils with short tufts of white wool, upper ones with occasional contorted bristles; interior perianth

segments long, 18–28mm, lanceolate, ca. 5mm wide at widest point, tips acute, edges serrate, deep rose to cream, with a broad, red central stripe, exterior ones long and slender, reddish-brown; nectary modified, widened at base, nectary floor purple; ovary isodiametric to compressed; style ca.15mm, purple over whole length, stigma lobes 10–12, salmon-red, superior part curved outward, 4mm long, with long pointed tips, filaments many, white, inserted over 2/3 of tube, about 6mm long,

Fruit red-brown, barrel-shaped, not elongating, ca. 1.5 × 1 cm, fruit-wall very thick, 1–2 mm; persistent on plant for many months, integument with only few small, reddish scales and short tufts of wool, basal pore very large, ca. 70% of fruit diam.; perianth remnant attachment area very large, 80–90% of fruit diam.

Seed ca. 1.5 by 1.3mm, rugose, ±ventrally notched below hilum, with testa cells arranged in ruminous rows of about 2 cells wide, blackish-brown, testa cells about 0.005 square mm in area, hilum round oval, sunken, hilum-micropylar region position oblique, keyhole shaped with micropyle in narrow groove, separated from hilum tissue by enlarged hilum rim.

Distribution: only known from the highest hills in the vicinity of Quebrada Carrizal (28° S). *Eriosyce spectabilis* grows in rocky outcrops, often in rock crevices.

Diagnostic characters vs. *E. odieri* ss. *glabrescens* (characters for *glabrescens* in brackets):

1. Stems hard to the touch (soft), sub-globose to globose, bluish green (sub-globose to flat to the ground, grey-brown).
2. Ribs pronounced, 9–11, deeply crenate (completely dissolved into tubercles).
3. Tubercles arranged in orthostichies (parastichies), much elongated, with pointed chins; (tubercles shorter, oval, chins obtuse, inconspicuous).
4. Up to 12 spines (5–8), up to 15mm, some adaxially flattened (<6 mm, never flattened), occasionally one blackish central spine (spines never black).
5. Wool on pericarpel and hypanthium short, not covering pericarpel and hypanthium (long, covering pericarpel and hypanthium).
6. Fruit with occasional tufts of short wool (long floccose wool) remaining on areole for a long time after maturity (soon detaching), < 2 cm, not elongating (elongating to 3 cm) barrel-shaped (ellipsoid).
7. Fruit wall very thick at maturity (thin).
8. Basal pore of seed very large (small), perianth remnant attachment area very large (medium to small).
9. Seeds to 1.5 mm (1 mm).

LITTLE BITS OF PEOPLE HISTORY by Chuck Staples, CSSA Historian

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periodical *Brittonia* was named in his honor in 1931 and its herbarium in 1935. Of a few books written by Britton and Rose their greatest accomplishment was *The Cactaceae* in four volumes from 1919 to 1923, the cactus bible of the day. Of the many cactus plant genera they described over half are still good names today. Together they described many species.

Johann Jakob Dillenius [Dillen] (1684–1747) was a German physician, botanist, botanical artist and philosopher. He went to England to assist amateur botanist William Sherard (1659–1728) in his herbarium and garden at Eltham, England 1721–28. Dillenius met Carolus Linnaeus (1707–1778) in 1736. Dillenius was one of the founders of the Botanical Society of London and first president in 1721—and was awarded a Fellow of the Royal Society in 1724. Linnaeus thought Dillenius' 1732 two-volume book *Hortus Elthamensis seu Plantarum Rariorum* was the most complete botanical work

the world had ever seen—a catalogue of plants in the private botanical garden of brother James Sherard (1666-1738) at Eltham. Dillenius drew and etched drawings in this publication that included succulent plants, mostly *Mesemb.* What we now know as *Opuntia* he called *Tuna* in this book.

Albrecht Vojtěch Fric (1882–1944) was a Czech Republic cactologist and commercial grower. He made seven exploratory trips to South America, Mexico and Texas from 1899 to 1929 to collect cactus plants. Fric had a tendency to ignore the Code of Nomenclature in setting up his own classification of cacti which upset many of the leading botanists of the time, e.g., segregating genera north and south of the equator. He described genera *Cylindrorebutia* (*Rebutia*), *Neowerdermannia* and *Obregonia* along with a few cactus plant species. A *Stenocereus* species was named in his honor. ❁

