

Mammillaria beneckei subps.. *balsasoides*, hab tat, Cerro Gu engo a, Oaxaca © Chr stophe Assa t; f ower ng n J. Lodé co ect on ©JL



Mammillaria beneckei n cu t vat on © J. Menze + M. beneckei & subsp. balsasoides © J.Menze .



Seeds of *Mammillaria beneckei* (eft) and of *M. beneckei* & subsp. *balsasoides* (r ght) © J. Menze.

M. beneckei var. n f owers © J.Menze.

NEW COMBINATION

Mammillaria beneckei (Ehrenberg) subsp. *balsasoides* J.Lodé 2015 comb. et stat. nov.

Basionyme: Mammillaria balsasoides R.T.Craig, Mammill. Handb. 158, 1945.

Holotype: México, Guerrero, between Taxco and Alcopulco (probably misspelled for Acapulco), in shade of trees mountainsides along highway between Rio Balsas and Chilpancingo, 11 June 1942, R.T. & I. Craig (DS).

Synonym: Dolichothele balsasoides (Craig) Backeberg

The differences at the level of the floral tube, the size of flowers, but especially at the level of seeds, doubtless the biggest of the genus (5 mm and more for the subspecies *balsasoides*) lead me to think that there is more than one taxon involved under the name of *Mammillaria beneckei*. Finally, its distribution in Mexico is very extended (Colima, Guerrero, Jalisco, Michoacán, Nayarit, Oaxaca, Sinaloa), and supposes, in view of the different morphological characters from a population to another, that we are in the presence of several subspecies among which one (or maybe more), the subspecies *balsasoides*, is retained and created here.

Mammillaria beneckei is a very widespread taxon West of Mexico, among others in the state of Michoacán towards La Salada (*M. nelsonii*); Guerrero, near Balsas (*M. balsasensis*), along Río Balsas (*M. aylostera*) and between Taxco and Acapulco (*M. balsasoides*), near *Colonia* (*M. colonensis*), also in Sinaloa near Río Elota (*M. barkeri*).

Its peculiarities allowed to classify this taxon in three different genera: *Dolichothele, Oehmea* and *Mammillaria*, and to have been described under several different names: *M. aylostera, M. balsasensis, M. balsasoides, M. barkeri, M. beneckei, M. colonensis, M. guiengolensis* and *M. nelsonii*, although some were considered later as synonymous and were then included under a single species, *M. beneckei*.

In his book of 1987 (*Mammillaria*), Pilbeam noted that he has yet to see what he would call an orange flower; however, on the previous page, below right, here is a photo of this taxon with orange flowers, courtesy of Jürgen Menzel, unfortunately without guaranteed origin, but which could correspond to the original description. The major part of plants in cultivation present pale yellow to dark yellow flowers.

J. Lodé

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