

Huitzilopochtli



February 2010

Miscellaneous Mammillaria musings, brought to you by the left-handed postman

I had hoped to issue these notes bi-monthly but time has flown and seven months have elapsed since Huitz's last delivery. Even now, though there is no shortage of topics to discuss, this one must also be brief, just to give a sign of life and largely taken up with a transcript of one of Alfred Lau's letters to me. This is because several other projects have come along since last July to which I have been giving much of my time. One of these projects, originally initiated by me with Dr Martin Lowry and other members of the New Cactus Lexicon editorial group to produce a series of distribution maps of genera of the Cactaceae, is now going ahead full-steam in collaboration with a research group at Professor Dr Wilhelm Barthlott's department at the University of Bonn. One of my jobs is to review their maps for all the Mammillaria species (and those of other genera), and I shall be spending quite a lot of time in Bonn over the next few months to do this and to try to bring the project to completion this year, 2010 being 'International Biodiversity Year'.

Letters from Lau (continued from p. 12)

Lau's next letter to me (21 June 1976) gave me directions to his home in Fortin de las Flores, where I subsequently visited the following month (see the picture of him in the first issue of *Huitzilopochtli*, p. 2) in company with a group from Kew. He later wrote to me (5 Oct 1976) describing his discovery of *M. [wrightii f.] wolfii* [see below p. 30] and mentioning other unnamed plants he had sent me, including those I later described as *M. tonalensis* and *M. laui*.

Having commented on these interesting novelties in my reply [23 Nov 1976] I then received one of the longest of his letters, dated 15 Jan 1977. I believe that (unlike some of his letters, which were newsletters copied to his supporters in the UK) it was personal to me. If anyone has a similar letter, I'd be interested to know. It ran to four closely typed pages, and I think it is of sufficient interest to *Mammillaria* enthusiasts to be worth reproducing in full. Initially he discusses the plants he had found up to that time between Jaumave and Ciudad Victoria, mainly what he erroneously identified as the two 'lost' species *M. roseoalba* and *M. carmenae*! Then he moves on to *Lau 777* and to the representatives of *M. wrightii* in Sonora, a trip to Baja California, and finally *Tradescantias* in Oaxaca, before a final and familiar lament at the way his activities in support of the Indian children are frowned on while the real plant robbers get away with murder.

Dear David,

Your letter was received after my return from Baja California, and I rejoiced to hear from you. Thank you for your Christmas greetings and the gift of the *Cactus Journal* for two years, including last year. I will treasure this very much. We did not send Christmas Cards to our friends this year as we must save every Penny for the work with the Indian children. Your comments on your visit to our home also have been appreciated very much by all of us. We long to your return to Fortin, especially as there is so much we could speak about with more time. As you are writing your revision on the genus *Mammillaria*, I could be of help to you, and one year is very little time. Whatever assistance I could offer, I would gladly share it with you. Any excerpts of my letters that you may find helpful, you can surely use and if there are any articles that I could write, please give me suggestions.

One article, similar to the one about the Tomellin Canyon. I should like to write about the five different *Mammillaria* that grow between Jaumave and Ciudad Victoria and are probably related to the rosea-alba complex. You saw the plant that I would term rosea-alba on the roof, but you were not certain whether this was the type plant known in science [1]. There is one interesting plant with two center spines and dark purple flowers in the Sierra Salamanca. Another one we observed at La Reja when we searched for *M. carmenae*. Yet one very striking species of this group comes from the highest mountain close to Reforma, across the valley from La Reja. It is the plant that you thought had affinity to melanocentra. I sent you a photo [2]. When I found the carmenae-related plant at the Asbestos Mine, there was another *Mammillaria* of the group of rosea-alba which I only now saw in flowers. I may have shown you the plant when you were with us. Yesterday I saw this species in flower. Of any of the “green” *Mammillarias* this one has the largest blossoms, a bright purple. Mr. Reppenhagen was with me, as I was eager to show him the place of the new carmenae-like species, and he was very much surprised at the size of the flowers. He had never seen anything like this before. Mr. Reppenhagen will leave for Europe in three days, and he is with me here in Montemorelos at this moment. He sends his kindest regards. Because of the winter he will not now send a package to you with the mentioned plants, but in the spring I shall see how I can get them to you. About this group I should like to write. Please let me know your opinion.

The most exciting news is that I found at last the real carmenae. Two days ago when Mr. Reppenhagen saw the plant with the center spines close to the Asbestos Mine, he was impressed by the beauty of this *Mammillaria*. We both came to the conclusion that, according to the description we know, there is a relationship with carmenae, just as you also said. We thought that maybe the description had been made in a superficial manner, and that the author of the plant had not taken time to see the whole area with a great part of the population. Yet I said to him that it was my opinion that, if carmenae really existed, it must be on a higher altitude and in semi-shade. With two of our Indian boys I climbed all day through almost impenetrable territory. We found a most interesting *Echeveria* which I have never seen described, and even there were smaller and finer spined plants of *Mammillarias* as grow at the mine. The mine is at 1000 metres altitude, and here we were at 1200 metres. Down we slid through the jungle of the northern slope, and as we reached the bottom of the large canyon, we almost gave up and wanted to return. Yet above us on the southern side there loomed huge granite rocks. The plant of the mine grows in what Reppenhagen calls porphyry, a volcanic brown substance. Thus I did not have much hope to find anything else than those plants that we had already seen. But at 1300 metres we found our first genuine *M. carmenae* [3]. It was extremely difficult to reach, and it grew in a crevice of granite boulders. It was a tiny plant, the spines being very soft, completely white, and there were no center spines. The only variation from the descrip-

continued on page 29

[1] As I reported in *Bradleya* 4: 63 (1986) I had looked for *M. roseoalba* myself, when I was in Tamaulipas in 1973, but did not find anything that closely resembled it. When Alfred showed me his plant, I remembered Bödeker's picture and it would be more accurate to say I 'did not think' his plant was what he was calling it! Nevertheless, he was more or less convinced he was right, even though he had not collected it at the type locality, and the notes on the data-form he later sent me reflected this:

Lau 1170 *Mammillaria roseoalba* (?). Tamaulipas, Ciudad Victoria, entrance to Novillo Canyon, 23:45N/99:15 W, 450 m, on steep slopes in humus collections and on clay, 20 Jun 1978 [sic!]. I had diagnosed the plant as *M. roseoalba*, but Dr Hunt has a different opinion. It would be important to come to a consensus.

In the list he compiled for AfM (1992: 87) he remarks: 'David HUNT once mentioned that he did not know *M. roseoalba*. He places this taxon to *M. magnimamma* which I cannot follow.' What I said was 'most plants grown as *M. roseoalba* [are] forms of *M. magnimamma*.

[2] See the photo on p. 28. This one clearly has nothing to do with *M. roseoalba*!

[3] Really? What he describes seems to me to have been one of the forms of *M. laui*.

– D.H.



The photo Lau sent me, as '1170 *M. roseoalba*'. (The Kodachrome slide was a copy dated Feb 83)

Bob Stanley's plant of **Lau 1170** leaves little doubt of its 'authenticity', but to my mind it does not resemble the original *M. roseoalba*

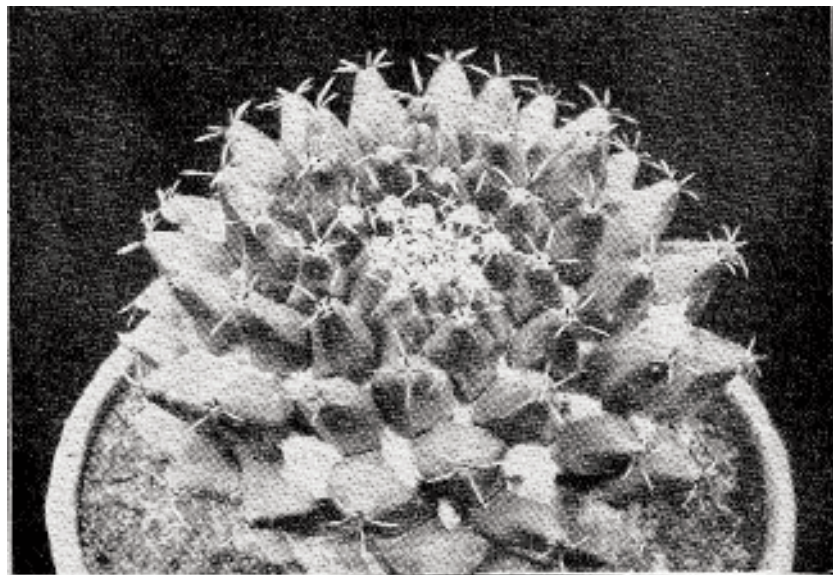


I did not think I had seen the true *M. roseoalba* until I saw **Reppenhagen 1279** at his nursery. But he was calling it *M. melispina*

The photograph accompanying the first description of *M. roseoalba* by Bödeker, MDKG 1: 87 (1929)

(‘roseoalbo’ in the caption was a typographical error)

The relationships of this taxon remain debatable, but the axillary wool, spination and flowers suggest to me that it does not belong to the series *Mammillaria*, but rather to the *Leucocephalae*, perhaps akin to *M. sempervivi* etc.



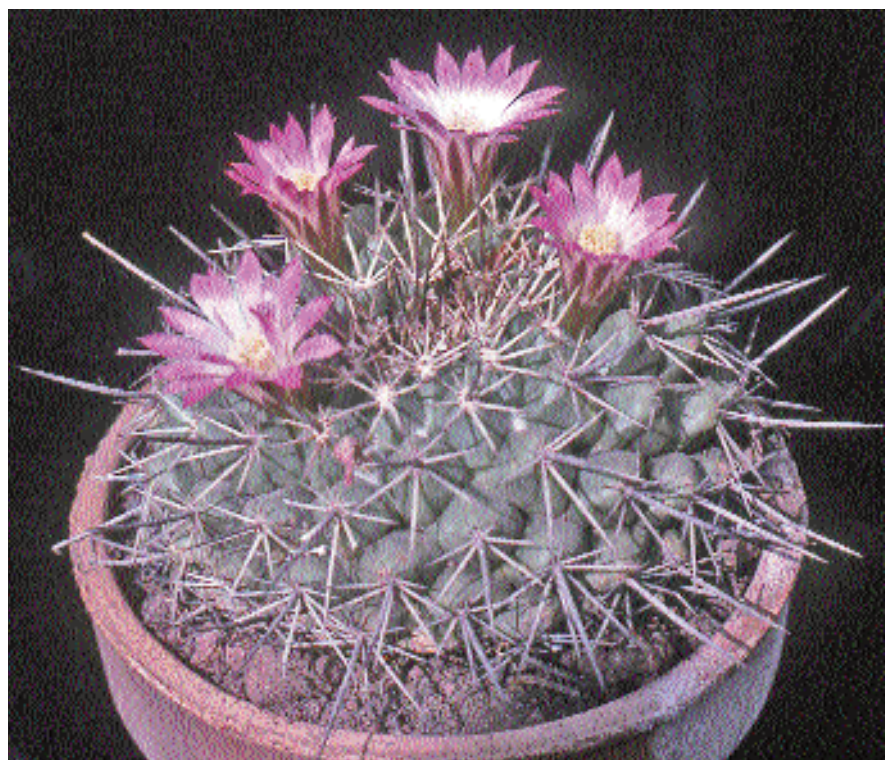
Mammillaria roseoalba Böd. sp. n.



Lacoste 463

Confirmation of my opinion has, I think, come with Michel Lacoste's habitat image of *M. roseoalba* at the type locality, San Vicente, a few km E of Jaumave, at alt. 720 m. This is without any possible doubt the genuine article.

Here is the photo Alfred sent me in 1975 of another plant he thought might be *M. roseoalba*. He had labelled it as follows: 'M. roseo-alba? La Reja, Reforma. Tam.', but I told him it was a form of *M. melanocentra* – now *M. melanocentra rubrograndis*.



tion was the colour of the flower. It was not white with purple edges but purely purple, just as the plant at the mine. Yet this colour is very common in Mammillarias. All day long we searched, and we found that this is an extremely rare plant. The highest range was at 1600 metres, but between those three hundred metres difference in altitude we only found about 7 or 8 plants, two of them large, e.g. 5 cms high and 3 cms. in diameter. The others were much smaller. Many dead plants were seen in the whole area, which include the other mentioned Mamillarias as well, as we did not see many carmenae. The reason probably is the tremendously moist summer and winter. Everywhere it is very wet. As I returned to the base camp you can understand Mr. Reppenhagen's excitement.

Early in the morning we ventured out again, having him in tow. He made it all the way to the habitat, which now was easier to reach, knowing where to go. Still, for the average man it is a difficult chore to get there. The plant cannot be exterminated by collectors, as first of all the terrain only allows the roughest of men to reach the place, and then many of the plants are on vertical rocks that can never be reached. On that second day I saw a most beautiful group in the semi-shade on a rock covered with moss and ferns. All plants are in buds and we shall be eager to get as many seeds from them as possible in order to propagate this plant. Mr. Reppenhagen took some photos in the habitat, but the day was overcast and the quality of the photos will probably be inferior. Seeing the tiny carmenae beside the stiff-spined much larger plants from the mine, there is as much difference, or even more, as between sphacelata and tonalensis or kraehenbuehlii. Below the mine, on 800 metres, most of the plants are yellow-spined and even more robust [4]. Among carmenae we only saw white spines, although in the description yellow spines are mentioned. The affinity to carmenae is not in doubt. The fruits are probably also of the same colour. But speaking again of sphacelata and tonalensis (which, by the way, I showed to Mr. Reppenhagen at one of his visits), I wonder whether it would not be correct to describe the plant from the mine as a new species rather than a variety [5]. There are so many plants that I have discovered. and it would be to me a great satisfaction, if one of them could receive my name. Most of the others have a direct relationship to those already known, like the yellow-spined Mammillaria from below Quioatepec, Oaxaca, which relates to rekoi, or the plant from the gypsum hill near Aramberri which is a form of picta, the long-spined from the white mountain near Nazas, which belongs to wagneriana, the yellow-spined from Monte Escobedo which is a form of petterssonii etc. Judging from a geographical standpoint, it is interesting to note that the plant from the Cerro del Viejo with the white, long, hairy spines resembles somewhat carmenae and it is interesting to note that the locality is quite close. I am sending you a photo of this plant in blossom on a slide enclosed. Some flowers are white, others light-pink. Did you receive a plant of this species from Cerro del Viejo? [6] This is definitely an interesting Mammillaria (or Dolichothele) to study.

From Germany I receive letters urging me to describe the number 777. Klaus Wagner in Dresden tells me that the seed is different from goldii. I do not have the seed, and therefore I cannot judge. The differences that I see are in the longer tubercles, the wider axilles, the broader areoles, the longer spines and the larger perianths, but these are no genetic differences. One difference is the time of flowering which falls into the months of June-July (v. goldii in March-April). Even considering the higher altitude the 777 also blossoms under cultivation much later than goldii. It remains to be seen if Wagner is right with the seed. The difference is more marked than in saboae, but in my opinion all these dwarf types will one day fall under one species. What shall I do? If I do not publish it, somebody else will do so very soon.

Prof. Schreier who will be with us in March, told me about an American botanist who holds the view that all wilcoxii, wrightii and viridiflora varieties are really only ecotypes. Probably he refers to Benson who treats all as conspecific. May I give you my own personal views?

Starting in Sonora, I found the first wilcoxii related plant in the mountains northwest of Nacozari, towards Cananea. They were sub-globose and single, all with the same purple flowers of large size (up to

[4] What he is talking about here seems to be *M. laui* [ssp. *subducta*].

[5] At last the penny seems to have dropped, though it has to be admitted that the relationship of *M. carmenae* and *M. laui* is not yet clear and demands careful fieldwork.

[6] Here, I assume, he is talking about *M. glassii* 'Dulces Nombres' and 'Siberiensis' and I can only agree that this is definitely another interesting species or complex to study – if one had the time and the opportunity! – D.H.

5 cm in diameter). The plants did not grow far away from *M. goldii*. The next *wilcoxii* I found near Yecora (again with number 777 close by). However, this plant, with slightly smaller flowers, had a cereoid body and always branched. Further east, from Maycoba to Yepachic, C[h]ih., the flower colour ranged from the deepest purple to the lightest pink, again cereoid in growth and branching. You will have seen the pink flowering large group that Schreier photographed and published in the German magazine. Immediately continuing to the east you have *garessii*, *moricallii* and *santa-clarensis*. In the three latter species I see too few differences as to warrant the term species. Maybe they are only ecotypes. It was really during an excursion in which I searched for *santa-clarensis* that by coincidence I met *wolfii*. This new variety grows between two populations of *santa-clarensis*, but under very different conditions. *Santa-clarensis* grows in the Santa Clara Canyon, coming from the main highway Chihuahua-Ciudad Juarez, on rocks close to the dry creeks surrounded by moss and mostly in the semi-shade. In this manner not only the flowers are the same as *M. barbata* but also the ecological conditions. The other *santa-clarensis* population I found on the west side of the Rio Santa Clara, e.g. on the western border line of the Mennonite colony. In between these two habitats there are the Mennonite ranches, on the mostly flat high plateau. Lodging with the Wolf's, one of their 16 children, a ten year old boy, showed me a plant only a hundred feet from their home which he thought was a *santa-clarensis*. Immediately it was clear to me that it had affinity to the plant found near Nacozari, with the broad sub-globose growth and similar spination. Taking the plant home, I was surprised at the large purely white flower that it produced. Also all other subsequent discoveries showed the same white flowers. Therefore I see justification in describing this rare and beautiful plant (all of which came from an area half a mile in circumference of Wolf's house) as a variety of either *wilcoxii* and *wrightii*. So far I have always recognized the sub-globose and single plants as *wrightii*, while I considered the branching cereoid plants as *wilcoxii*. What is your opinion? The fruit of *wolfii* is, as Craig observes in *wilcoxii*, pink base, greenish pink to purplish at top, large ovate. Did you get the plant with its fruit? By the way, I found plants that are very similar to *santaclarensis* to the west of Nieves in Durango. This might be an interesting note for you.

In Baja California we had many an adventure which I cannot enumerate here in detail. On Angel de la Guardia we were trapped five days by high wind. We almost ran out of water, but because of the time we had, I entered the center part and found huge amounts of *M. angelensis* of which we collected 200 grams of seed. I also found small plants and seeds of *Ferocactus johnstonianus*, which is a very rare and beautiful cactus. Seeds of *albicans* and *cerralboa* also were collected. But the highlight was the discovery on the highest part of Cedros of a very thick-leaved *Dudleya*, very different from any other plant of that genus, and with a white coating. What might interest you more than anything is the discovery of an area in which a type of *M. insularis* grows. In the far west, on the way to Tortugas, in the Sierra Pintada and Sierra Azul, this plant produces fewer spines than the *insularis* in the Los Angeles Bay. I await eagerly the flower. In



Lau 1042 Kurt Schreier's photo of the white-flowered *M. wrightii*, which I named *M. wrightii* f. *wolfii*.

When I came to know him in the 1970s, Professor Schreier was a highly respected paediatrician and Director of the children's hospital in Nurnberg. At home he had a splendid collection of mammillarias. Sadly, he died prematurely of cancer.

Bahia San Hipolito we found a *Mammillaria* with affinity to *goodrichii* (or could it be related to *louisae*?). The flower is white, as in *goodrichii*, with a tiny suggestion of pink in some of the plants. By the way, I wholeheartedly agree with your observation that *goodrichii* v. *rectispina* has nothing to do with *rectispina*, apart from the fact that they all belong to the *dioica* group. *M. goodrichii* v. *rectispina* has very small flowers, and most plants have tiny hooked spines as well. If you need material of these plants for comparison, please let me know.

Enclosed please find the slides of the new *Tradescantia* in its habitat. I thought that you might be able to use them. Also, I am sending you a photo of a white flowering *Tradescantia* from Tonalá, Oaxaca. You might not need it, as it is probably a well-known species. Then I am sending you the photo of one of the *Pinguicula* plants that associate with the *T.* at Juxtlahuaca. I would be happy to know the name of the species. I also have found interesting *Pinguiculas* in the Sierra Salamanca in Tamaulipas, flowering now. At last there is a photo of the *Mammillaria* from the Cerro del Viejo. You thought that it might belong to the sub-genus *Dolichothele*, but the flower is that of *Mammillaria*. Whatever more material you need for *M. tonalensis*, I would be happy to oblige. Just let me know. When I showed Mr. Reppenhagen the location of this plant, he was maybe more aware of this plant being a new species as I, because of the closeness to *sphacelata*.

Please let me know how much money I owe to the IOS Congress. To whom do I send the check? I have to close now, and I trust that I have not forgotten anything. Sadly I see how American importers destroy the cactus habitats. A man in Metztitlán collects for Americans. We saw hundreds of *M. herrerae* and *humboldtii* there, heaps of *M. ingens* and *M. schiedeana*, all exposed to rain and rotting away. When I phoned Sánchez Mejorada and told him, there was only little reaction. It seems to me that there is a difference being made whether a person exports a tiny proportion of *Lophophora* to support poor Indian children or another eradicates really rare and precious cacti. Please forgive my bitterness. Even before my turn came to give the slide talk at the 25th Anniversary in Mexico City, a man from the Agricultural Department who had given the signature three years ago to allow the exportation of the *Lophophoras*, enlarged on the subject with all the people congregated, and after this he left, leaving me behind with a very delicate matter to handle. I hope that this had not been planted in advance. Recently a man came to our home from the U.S. who wanted every week 10,000 plants of *Tillandsias*. When we declined, he said “Well, I only wanted to help you in your work to finance the Indian children. I have Mexican helpers who gladly fill my orders”. At the border they have their men.

Looking forward to your next letter eagerly, and trusting that I can be of some assistance in your revision of the genus *Mammillaria*, I remain
yours sincerely,

Alfred

Focus on the *Polyacanthae*

In the previous issue (page 20) I repeated my earlier opinion that Lau was correct, or at least justified, in calling his no. 1096 *M. guerreronis*. Mexcala, where Lau collected his 1096 ([?] on the map overleaf), is very much closer to the type localities of *M. bella* [Be] and especially *M. guerreronis* [Gu] (which is virtually adjacent) than those of the two named *M. meyranii* forms [Me] and [Mi]. I added that I thought that my referral of *M. bella* to *M. nunezii* had been a mistake, and referred to ‘Feedback’ below, but omitted to give the explanation I had intended.

In one of several comments, Mark Masterson (e-mail: 090530) had said that the photos by Chris Davies (page 14) helped towards resolving the matter of Lau 1096. “My plants of ML 48 are still too small to offer any comments on the matter. You talk of reclassifying *meyranii* and *bella* to make their close relationship clear. I have no problem with them being made subspecies of *guerreronis* but it would mean removing *bella* as a subspecies of *nunezii*. I do not think you could claim that *nunezii* could be considered to be a subspecies of *guerreronis*.” Well, I don’t think I suggested combining the two species, but if that was on the cards, *M. nunezii* is the older name,

so *M. guerreronis* would be reduced to a subspecies of *M. nunezii* – I don't think anyone would buy that just yet! Apart from the obvious morphological differences I think the ecology of *M. nunezii* and its close allies further east probably differs significantly from *M. guerreronis* and the others from in the drainage system of the Río Balsas and its tributaries. But it's curious that the type locality of the very different-looking *M. matudae* [Ma] is so close to that of *M. meyranii*. There is clearly a lot more to learn and understand about this remarkably diverse series.

