



*New Years resolutions... I don't think I ever managed to keep any of mine, so this one to re-employ the left-handed postman may be short-lived, like many of the other seedlings I have raised in the course of previous Januaries! However, having compiled the previous four pages as a diversion over the Christmas break, I have pressed on to do another six pages, bringing the total so far to 64. Now that digital printing is no longer a luxury for short-run publications, and in hopes it will motivate me to **keep** pressing on, I've decided to re-issue these first 64 pages as 'hard copy' in the form of two 32 pp A5 booklets. The first (pp. 1–32) is now available! D.H.*

Strictly *Mammillaria*, please!

*Our re-employed left-handed postman says 'that's all very well' but he cannot undertake to deliver printed matter on topics concerning plants other than his pet genus *Mammillaria*, or reviews of the accommodation and food provided by hotels etc in Mexico, or even photographs of ladies and gentlemen at group meetings feeding and watering themselves or listening to (or bored by) talks by their fellow experts, etc etc. He **does** welcome concise and constructive contributions to the **study** of the genus *Mammillaria*, especially if they are accompanied by documented images of the plants discussed, whether in the field or cultivation.*

The *Mammillarias* of Alfred Lau

The projected Lau booklet with this provisional title has been on hold far too long, partly as a consequence of the death of Bob Stanley, the principal source of input and motivation, but mainly my own fault in not circulating this bulletin more widely. Judging by his comments to me, Bob (who died on 13 September 2012 after a long battle with prostate cancer) had considerably more contact with Alfred and plants from him than I did, and his input was invaluable. At least we have Bob's images of more than 50 of his Lau-numbered plants (Huitz. pp. 40-44) and these, if reissued, might perhaps stimulate input from others with Lau plants.

From my own correspondence with Alfred Lau, I do not think I can contribute much more, though there remain unresolved questions concerning the identity of some of his plants. As explained on the first page of this bulletin (2009), Lau had supplied me with detailed collection data for many of his *Mammillaria* collections, with a view to the production of a booklet. I had sent him a template to photocopy and fill in for each collection and in due course he sent me batches of forms he had completed, two to a sheet (for examples see Huitz pp. 4 and 10) and over 400 records in total. The data were duly copied into a data table but apart from his approximate figures for the latitude and longitude at most of the locations, they are generally less detailed those he provided to Othmar Appenzeller for his *Feldnummern Liste Alfred B. Lau Teil 1 Mexico 1972-1992* and do not include Alfred's comments on identification etc. For that reason I doubt it would be worth publishing them *in toto* but they are easily sorted into their taxonomic series (*sensu* Hunt) and

printouts in that format might be helpful if there is interest in continuing the type of survey I initiated for the Polyacanthae and Supertextae in previous issues of 'Huitz'.

Mapping progress

Again, I'm sorry to say there has not been much progress, visible at least, since I took up the subject two years ago (see pp. 45-47). Regrettably, publication of the *Mammillaria* maps I prepared for Professor Barthlott's project is still awaited but my colleagues at UNAM's Instituto de Biología, having decided that the second volume of '*Mapping the Cacti of Mexico*' should be devoted to *Mammillaria*, have been busy preparing their maps, based on the collection data of thousands of herbarium specimens, and are still hoping the work will be completed for publication this year.

In connection with this work, I devoted several days on my two recent visits to Mexico to studying the hundreds of herbarium specimens provisionally identified or awaiting identification at the Institute's herbarium (acronym MEXU).

Given a general knowledge of which species occur in the various states, like Puebla or Hidalgo, for instance, and of the groups to which they belong, one can be reasonably confident of the identity of many herbarium specimens, though many features are lost in the preparation and preservation of cactus material. Some groups are very difficult, however, such as the series Stylothelae and Lasiacanthae, especially if the preserved material is sterile or fragmentary, as was much of the material I saw of the mentioned groups.

Then, of course, a good photo of the living plant, taken prior to its preservation, and attached to the herbarium sheet, can provide the evidence for a conclusive answer, but there were few or no photos with the material I was asked to review. GPS data were given for many of the more recent collections and useful in pinpointing the 'findspot' a specimen was collected, but little or no help when the preserved material was too poor or incomplete for identification. To re-visit a GPS locality for further observations is usually impracticable on a limited time/money budget (and in my personal experience very 'hit and miss'!).

From my Mexican notebooks

16 August – 22 September 1971

As in 1969, this visit was planned for collecting material of *Tradescantia* and related genera for cytological research at Kew and my own PhD study. But many of the taxa strictly relevant to the research are sub-succulent, or perennate by means of thickened rhizomes or tubers, and grow together with cacti, so I also had the opportunity to see several more *Mammillarias* and a lot more other cacti.

Again, as in 1969, I did not have funds (or, I might add, the knowledge or confidence) to travel far by myself, let alone hire a car, so was very much 'under the wing' of botanists at UNAM, especially Dr Arturo Gómez-Pompa, then Head of the Instituto de Biología, Dra Helia Bravo, then working on the second edition of her *magnum opus*, *Las Cactáceas de México*, and her assistants Hernando Sánchez-Mejorada and Leia Scheinvar. My participation in a field trip to San Luis Potosí and Tamaulipas, departing a few days later, though with different objectives to mine,

was suggested by Dr Gómez-Pompa and very readily agreed by me. Meanwhile, Hernando and I spent a day in the mountains between Mexico City and Cuernavaca collecting *Tradescantias* and then a day obtaining the necessary phytosanitary certificate required to airmail and import the plants to Kew, and making preparations for the trip.

‘Peyote’ trip 20– 25 August

This trip, led by Hernando, had been organized for Jan and Katarina Bruhn, from Sweden. Jan was on the staff of the Dept. of Pharmacognosy, of the University of Uppsala, and was working on alkaloids in cacti*. The main object would be to collect quantities of *Pelecyphora aselliformis* and *Obregonia denegrii* for analysis. We had hoped Helia Bravo would come with us, but she had to remain in Mexico to look after a relative who was ill. Instead we were joined by Leia Scheinvar.

20 August

We left Mexico City and drove northwest on Mex 57 via Querétaro into the state of Guanajuato, stopping for me to see *Mammillaria gigantea*, *M. muehlenpfordtii* and the almost ubiquitous *M. uncinata* (see next page) -- and collect three different *Tradescantias*. After two or three more stops, including an unsuccessful one for *Pelecyphora aselliformis* north of the city of San Luis Potosí, we returned to the Motel Santa Fé at the junction of Mex 57 and Mex 80, ignoring the topically named but flashier Motel Cactus next door, to spend the night.

21 August

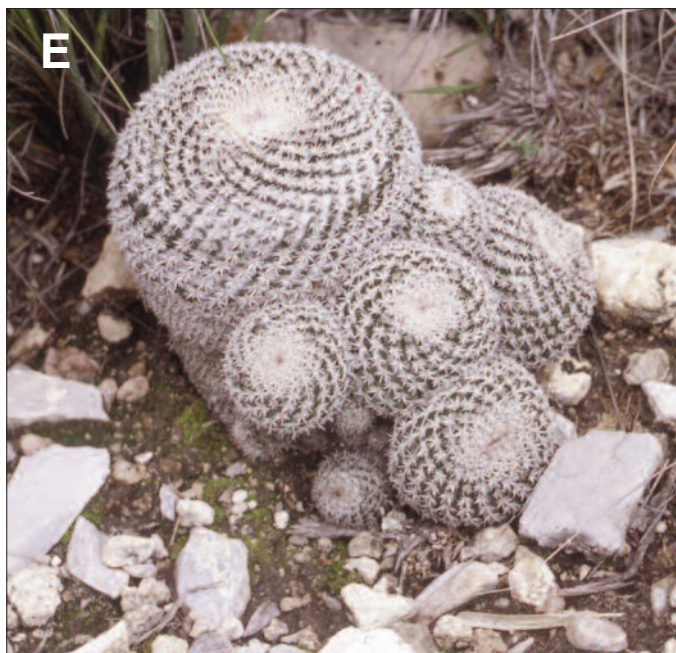
A second attempt to find *Pelecyphora aselliformis* for Jan Bruhn via dirt roads to the east of Mex 57 failed but was lucky for me as I spotted *Mammillaria* [*crinita* ssp.] *leucantha* in flower on an acidic outcrop or dyke of volcanic origin. Nearby, *M. formosa* was much more common, was confined to the calcareous areas to either side. Later, exploring low rounded hilltops about 30 km of the Mex 57/80 junction, Jan’s luck turned and we came on a flourishing population of *P. aselliformis* and also a few plants of *M. aureilanata* in patches of moister soil dark with humus.

To conclude the day’s botanizing we made a lengthy stop beside y the microondas road above Huizache, where I counted no less than 17 cactus species in 13 different genera, before we returned to the Motel Santa Fé.

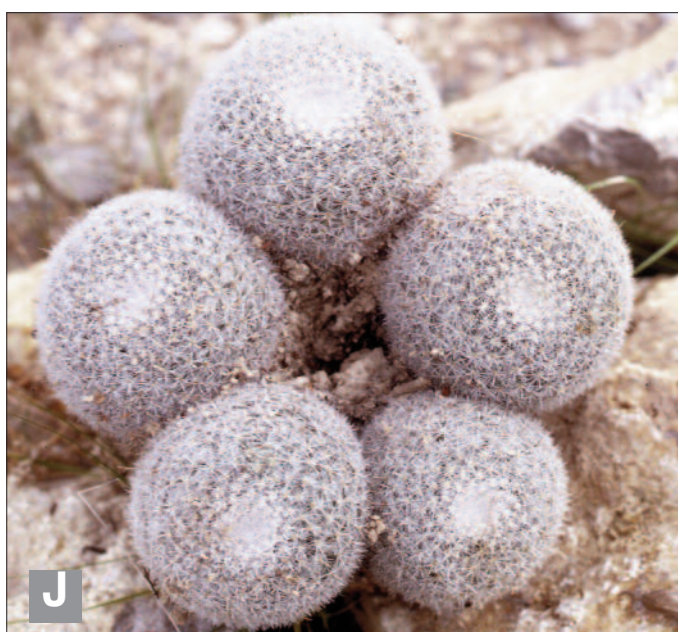
22 August

After a short stop near Huizache we continued on Mex 101 to Tula, where Jan and Hernando were able to buy a bagful of *Ariocarpus agavoides*, 6 for 1 peso. Stops beyond Tula enabled me to see *M. picta* [ssp. *picta*] and *M. klissingiana* and to collect several *Tradescantias* in the Jaumave valley. For our overnight stop we drove over the pass at the head of the valley and on to Ciudad Victoria.

*For an article by Jan, see Bruhn, J.G. (1977). Three men and a drug: Peyote research in the 1890’s. *Cact. Succ. J. Gt. Brit.* 39(2): 27–30.



Guanajuato, N of Querétaro, 2000 m, 20 Aug 1971: [A] *Mammillaria gigantea* [DH 710105], [B] *M. uncinata* [DH 710111] and [C] *M. muelhlenpfordtii* [DH 710108]; San Luis Potosí, between SLP and Huizache, c. 1950 m, 21 Aug 1971: [D] *M. crinita* ssp. *leucantha* [DH 710126], [E] *M. formosa* [DH 710204] and [F & G] *Pelecyphora aselliformis* [DH 710211 & 710214].



[loc. as [F & G]: [H] *Mammillaria aureilanata* [DH 710221]; Tamaulipas, between Tula and Cd. Victoria, 22-23 Aug 1971: [I] *M. picta* ssp. *picta*, 1720 m [DH 710325], [J] *M. klissingiana*, 1340 m [DH 710328] and [K] *M. picta* ssp. *viereckii*, 820 m [DH 710403]; SLP, W of Cd Valles, 530 m. 24 Aug 1971: [L] *M. prolifera* ssp. *texana* [DH 710431]; by Mex 57 c.20 km S of Sta Maria del Río, 2020 m, 25 Aug 1971: [M] *M. decipiens* ssp. *decipiens* [DH 710506].

23 August

With *Obregonia denegrii* as our main objective, we drove back over the pass, and after a stop to see *Ariocarpus trigonus* (massive specimens) and *Mammillaria picta* [ssp. *viereckii*] and *M. hemisphaerica* (*M. applanata*) drove to a village near Jaumave where Hernando hired someone he knew who could take us to the *Obregonia* locality. When we got to the place we were dismayed to see literally dozens of piles of uprooted plants, apparently dug up by someone in hopes of selling them. The plants were mostly alive, so Jan took what he needed and we set to work replanting as many of the rest as we could before returning to Cd. Victoria.

24 August

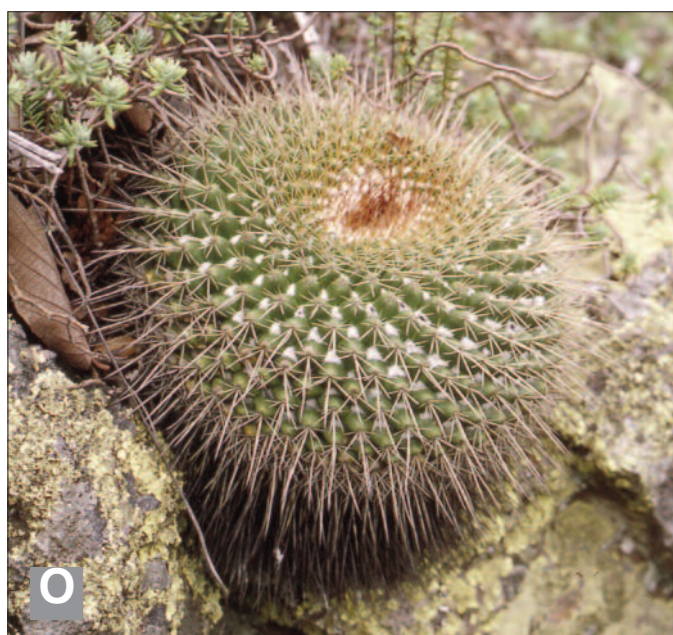
From Cd. Victoria we drove south on Mex 85 towards Ciudad Mante, past hectares of sisal plantings, and then low shrubland where Hernando showed us *Echinocactus texensis*, *Ferocactus echidne* (*F. victoriensis*) and *Sclerocactus megarrhizus*. South of Mante and back in the state of San Luis Potosí again, I spotted *Mammillaria prolifera* [ssp. *texana*] on limestone rocks beside the road.

At Cd. Valles we took the Mex 80 west towards Río Verde and made the long drive starting in splendid subtropical forest at 500 m.s.m. back to the Mex 57 and (this time) the Motel El Mequite (1900 m).

25 August

Heading for Guanajuato, we drove south and then southwest on Mex 110, Before Dolores Hidalgo we saw *Mammillaria magnimamma* with very variable spination matching Craig's *M. vagaspina* and, in the mountains beyond the town, large plants of *M. petterssonii*, very variable in shape and spine colour. Still higher I duly found the official object of my quest, at its type locality, *Tradescantia pulchella*.

We stayed the night at the Motel Guanajuato before returning to Mexico City the following morning.



Guanajuato, by Mex 110, c. 20 km NE of Dolores Hidalgo, 2420 m, 25 Aug 1971: [N] *Mammillaria magnimamma* (*M. vagaspina*) [DH 710512]; c. 25 km SW of Dolores Hidalgo, Sierra de las Rosas, 2600 m, 25 Aug 1971: [O] *M. petterssonii* [DH 710516]