

Huitzilopochtli

March 2009



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

Yes, the left-handed humming-bird is on his rounds again..... ten years since his last delivery. Why now? Well, with more enthusiasts exploring in Mexico, more taxa being described (or at least named!), more discussion of documented introductions, a major reference collection of the genus being assembled, and communication by e-mail so cheap and easy, why not? No need to wait months for your comments to be published, no need to pay for printing, no need to collect subscriptions, and no need to beg for contributions to fill the next issue – the format is flexible!

The Lau mammillarias: a project to be revived?

Those with long memories will remember that back in 1983, in the *Journal of the Mammillaria Society* (hereinafter *JMS*), I launched a survey of Lau and Reppenhagen plants in cultivation. Subsequently (now 20 years ago, oh dear!), in the first issue of *Mammillaria Postscripts* (1989), I mentioned that Dr Lau had supplied me with detailed collection data for virtually all 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 complied with my request and sent me batches of forms, two to a sheet. (By that time I had also spent an uncomfortable week at St Veit, Austria, working and sleeping in a room at the end of Reppenhagen's potting shed, poring over a set of maps of Mexico on which he had marked his collection localities, and reading off the relevant latitude and longitude coordinates. But that visit and the Reppenhagen plants are another story!)

In the 1970s and 80s, thanks to our mutual interest in mammillarias, I had an extensive correspondence with Alfred Lau (much of which I have preserved) and visited him at his home in 1976. Ultimately in view was, as mentioned above, a booklet about his collections, but owing to my other commitments, coupled with legal restrictions on the export and import of cacti from Mexico, lack of adequate photographs (Alfred was not the world's best photographer) not to mention herbarium vouchers, and Alfred's own great difficulties in the last decade or so of his life, the booklet did not get written. However, as well as the forms he sent me, he must also have given much of the data to the German *Mammillaria Society*, which published it in both German and English, edited by Othmar Appenzeller, in 1992. Many of his plants are of course in cultivation and propagated and some doubtless photographed by their growers.

Quite early on in our correspondence, Alfred and I began discussing the many plants referable to ser. *Supertextae* he had found in the mountains to either side of the valley of the Río Salado, between Teotitlán del Camino and Tomellín, in northern Oaxaca. Felipe Otero had shown me several of the localities close to the road during a day trip in 1974. Later, in February 1976, Alfred sent me a draft report and photographs which I eventually published for him (*CSJGB* 41(3): 61-66. 1979), followed three months later by the first descriptions of *M. huitzilopochtli* (l.c. 41(4): 106-107) and other Lau novelties.

When, a few years later, as the then President of the *Mammillaria Society*, I initiated the survey of Lau and Reppenhagen plants, I received a total of 70 responses and duly listed the results in the *JMS* (25(1): 5-7. 1985). In summary, 153 of the 364 relevant Lau numbers were reported as



Alfred Lau with his mammillarias on the roof of his house at Fortín de las Flores, near Córdoba, Veracruz, Mexico, July 1976. [DH 760931]

present in one or more collections. The 17 most commonly represented numbers accounted for half the grand total of 824 records. Study Sessions were held at Kew on two occasions, 28 April 1984 and 30 March 1985 (for reports see JMS 24(4): 47–50, 53–56. 1984 and JMS 26(1): 1–4. 1986), which provided more detailed information on a total of 18 numbers: Lau 020, 037, 044, 052, 060, 761, 774, 782, 1044, 1045, 1048, 1069, 1108, 1116, 1118, 1128, 1165 and 1296, and comments were contributed on some of these and other numbers by R.E. Stanley (JMS 24(5): 64–66. 1984) and by S.C. Woolcock (JMS 25(3): 50. 1984 and JMS (26(5): 52–54. 1985).

*The last time I met Alfred was at the University Botanic Garden in Mexico City in October 1986, when he showed me the plant that was to be preserved as the holotype of a new variety of *M. huitzilopochtli*. He thought the long twisted and interlacing spines made it look like a little bird's nest, so I suggested he could give it the epithet 'nidiformis'. He agreed but preferred the diminutive form 'niduliformis' and duly published the name some years later (JMS 34(4): 46–49. 1994).*

Though reviving the survey of Lau mammillarias in cultivation has always remained on one of my rather too numerous "back-burners", it is thanks to Mark Masterson and the enthusiasm with which he has set out to create a Mammillaria Reference Collection, and his requests for advice on various matters related to the project, that has persuaded me to turn up the heat on this particular gas-ring (which could I suppose, be another name for a Round Robin!) and see if we can get the pot to boil or at least simmer gently. Also to be acknowledged is Bob Stanley, faithful and perceptive contributor to JMS over many years, who has also stirred the pot for me with his occasional letters, comments and enquiries.

*A year ago, Mark asked me to 'find out where Lau collected L 1134 and 1135 sp [aff] lindsayi'. His enquiry was in relation to discussion about a proposed new species of this general affinity, *M. sinforosensis*. Subsequently Mark asked me for a photocopy of Lau's data for L 621, identified, mistakenly perhaps, by Lau as *M. marksiana*. More recently, there has been discussion in JMS of L 1096, listed by Lau as *M. guerreronis*, and Bob Stanley, has asked for a copy of the data Lau sent me on this one. These are the main topics for this trial issue.*

Lau 1134 and 1135

Lau: *Mammillaria lindsey* [sic] form, Chihuahua, Divisadero, 2200 m, 27:30N/107:55W, granite rock, 20 Oct 1977; Large granite rocks in whose cracks in humus collections the plants grow. This form has much larger and more robust spines than the forms near Rio Urique lower down [i.e. L1135 – see page 10]. From this vintage [sic] point the whole Barranca de Cobre is visible.

Mark Masterson wrote to me (18 Feb 2008) concerning a controversy resulting from the description of a so-called new species, *M. sinforosensis* Linzen & Schumacher (KuaS 58(9): 238. 2007). Linzen & Schumacher were of the opinion that *Lau* 1134 and 1135, distributed by Lau as *M. lindseyi*, were their new species, not the 'true' *M. lindseyi*. It would be handy, Mark said, to establish, if possible where Lau's plants came from. I duly sent him a copy of the relevant data form, quoted verbatim above (comments in [] mine).

Subsequently Mark contributed a commentary on the controversy (JMS 48(3): 76–77. 2008), referring to the Linzen/Schumacher article and to contrary opinions expressed by Manfred Hils (MAfM 17(1): 26-34. 1993 and 'Gallery IV: Eine Photoserie durch die Barranca del Cobre in Nordmexico': website [1 Nov 2001]: www.kakteenfreundemuggensturm.de/gallery/gallery4/gallery4.htm. To get befuddled by all this, one only needs to read the article (in itself very lucid!) by Bob Stanley (JMS 48(3): 72–75. 2008) which immediately precedes Mark's, and the earlier effusions Bob cites. One of these was another article by Bob himself (JMS 46(3): 61–62. 2006) on *M. lindseyi*, illustrated with photos (facing l.c. page 72) of flowering specimens in his collection, including one of *Lau* 1135, received by him in 2003 and said to have been vegetatively propagated from one of Lau's collected plants. It has magenta flowers, not the yellow typical of *M. lindseyi* and demonstrated by Bob's other plants, which included one of *Lau* 621 (as *M. markisana*; see below)

For myself, I'm not clear how "*M. sinforosensis*" differs in any but minor details from *M. standleyi*, which I have seen at or close to the type locality west of Alamos, Sonora (see NCL pl. 446.1). It is good to have more images, locality records and even plants (if legally obtained) to document the variability of this species, but I would prefer to be spared the proliferation of latinized locality names and ensuing controversies. Meanwhile the best identification of *Lau* 1134 is '*Lau* 1134' or perhaps '*M. aff. standleyi* L1134', ditto *Lau* 1135. It is probably best *not* to use the name *M. lindseyi* for *Lau* 1135 in view of the general muddle over its identity as well as its magenta flowers.

In the 1984 JMS survey, by the way, no one reported having L1134 but three respondents said they had L1135. One of them, however, listed it as *M. nejapensis*, so I suppose this record should be discounted!

Lau 621

Lau: *Mammillaria marksiana*, Sinaloa, Bacubirito, Rancho del Padre, 25:35N/107:40W, 800 m, conglomerate rock, 30 Apr 1973; in deep valleys on almost vertical cliffs, mostly facing south. The mountains rise to the Sierra Madre Occidental. [Other cacti present:] *Echinocereus subinermis*, *Ferocactus schwarzii*.

The briefer AfM version says the altitude was 400-600 m, which seems more likely to be correct, and adds a comment (by Lau or by Appenzeller?): "This yellow-flowering *Mammillaria* was placed into the Sonorensis-group, while similar species - like *M. lindseyi* and *M. canelensis* - were placed into the Standleyi-group." Mark Masterson's request (1 Apr 2008) for this data followed correspondence with Wolfgang Plein about an article by Rogozinski & Plein (MAfM 31(1): 18–28. 2008) which led Mark to believe that plants of *Lau* 621 in his collection were not *M. mark-*

siana but *M. bocensis*. Earlier, as noted above, Bob Stanley (JMS 46(3): facing page 72, fig. 5. 2006) had illustrated his plant of *Lau* 621 as *M. marksiana*. This he had received from Lau in 1987 and raised in 1988, obviously not from the original collection made 15 years earlier.

Without a shadow of doubt, Bob's plant cannot be correctly identified as *M. marksiana*. Lau habitually re-used the same number as before whenever he re-visited a site to collect more seeds, which is bad practice and a potential a source of complications. It seems improbable that Lau would confuse *M. marksiana* with *M. bocensis* but we cannot be sure.

Bacuberito was in fact the type locality of Backeberg's *M. rubida*. Having up to now referred *M. rubida* to *M. bocensis*, rather than *M. sonorensis*, I am probably to blame for Plein & Rogozinski, calling the plant from Bacubirito *M. bocensis*. In a narrow sense this name is probably is best restricted to the pale yellowish-flowered and usually clump-forming plants from the coastal plain (see my photos on page 8). Since both yellow- and red-flowered forms were described in *M. tesopacensis*, the 'true' *M. bocensis* may (like them) be indistinguishable from *M. sonorensis* (described as red-flowered), even as a subspecies. If it isn't, then *M. sonorensis* is the older name and this would be my preferred name for the plants from Bacuberito.

Lau 1096

The latest request for Lau data, concerning *Lau* 1096, came in a letter from Bob Stanley (2 Mar 2009) following up comments on plants grown under this number by Chris Davies (JMS 48(4): 104. 2008), and Bill Maddams (ibid. 49(1):10. 2009) and Bob Stanley's photo (l.c. 16) of his own plant of said number. Lau's form for his no. 1096 is reproduced below. There can be little doubt that it differs markedly from typical *M. guerrerensis* and that there must have been a mix-up somewhere along the line. In a further letter Bob Stanley (6 Mar 2009) has drawn my attention to a remark at the end of the description of *M. guerrerensis* in Craig's *Mammillaria Handbook* (1945), where he says (p. 131): 'Dr Iwerson of Mexico City reported to us that he had found this species

Lau no. 1096	Identification <i>Mammillaria guerrerensis</i>		Series Polyacanthae	
State Guerrero	Marest. fam. Chilpancingo	Village Mexcala	Latitude 17° 55'N	Longitude 99° 40'W
Altitude 600 m.	Substratum loam and humus collections	Date of collection Day 25 month 12 year 75	Material: Habitat Plant	Material: Seeds Plants
Description of habitat On the banks of Rio Mexcala which later is Rio Balsas The plants grow to about 800 meters altitude and are often in semi-shade of the low trees, but in gravelly areas			Date received	
Other cacti present <i>Mammillaria balsasoides</i> , <i>Neobuxbaumia mezcalaensis</i> , <i>Mammillaria fuauxiana</i> , <i>Hertrichocereus benecki</i> , <i>Coryphantha dumama</i>			Accession no.	
			Vouchers: Flora	seed
			flora	veg
			Published date	

Data form submitted to David Hunt by Alfred Lau for *Lau* 1096. The form was devised by D.H. and the box headings were hand-written by him. The typed data was provided by Lau. Compare the entry in Feldnummern-Liste Alfred B. Lau, Teil 1 Mexico 1972-1992 (Sonderheft 1992 AfM) on the next page.

Mexico, Guaj.; 25.12.1979; 600-1000 m
 Auf dem linken Berg; Löss und Humus
 On the right mountain; loess and humus.
 1096 *Mimulidopsis guatemalensis*; Ser. Polyanthae; Murchi-Gruppe
 1097 *Mimulidopsis albicans*; Ser. Superbidae; Superbidae-Gruppe
 Ich bin mir nicht sicher, ob es die "richtige" *M. albicans* ist, denn es gibt
 sehr viele ähnliche sehr ähnliche Taxa.
 I am not sure whether it is the "true" *M. albicans*, because there are many
 similar taxa.
 Weitere Kollegen: *Mimulidopsis lutea*, *Mimulidopsis maculata*, *Mimulidopsis*
lucida, *Mimulidopsis (Mimulidopsis) corymbosa*.

Entry for *Lau* 1096 in
 Feldnummern-Liste Alfred B. Lau,
 Teil 1 Mexico 1972-1992
 (Sonderheft 1992 AfM: 77. 1992)

also at San Juan de Peura, Michoacan'. Bob asks "Now I know in the Craig book there are a few rather fanciful ideas of how to write down location names. Could this be yet another? When describing *M. meyranii* Bravo var. *michoacana* Buchenau in Cact. Suc. Mex 14: 75 (1969), the type location was given as Mexico, Michoacan, San Jose Purua. Is it stretching things too much to assume the latter name is the same place?"

I think Bob's right – see JMS 2(5): 59 (1972) and Bradleya 3: 62 (1985), where I record seeing *M. meyranii* at San José Purua only two years after Buchenau's description was published. In fact the caption for NCL pl. 431.1 is incorrect; the plants I saw at Valle de Bravo with Dudley Gold in 1971 were out of reach and (at some risk to life and limb as it was only just in reach on the edge of the barranca!) I actually collected the one shown at San José Purua, at c. 1500 m. It remained with Dudley, by the way, who held it for me to photograph – you can just see his wrist at the left of the picture.

To me Bob's plant veers more towards *M. nunezii* ssp. *bella* (NCL pl. 431.2) than *M. meyranii*, but neither of these grow close to Mexcala and a misidentification by Lau himself is unlikely. That plants grown today as *Lau* 1096 are imposters seems the more likely explanation.

From my Mexican notebooks

To date I have made a dozen visits to Mexico, in 1960, 1969, 1971, 1973, 1974, 1976, 1986, 1987, 1988 (twice), 1992 and 2002. The first doesn't really count, because I was with a group returning to England from Belize (then British Honduras). We had flown in to Mérida (Yucatán) and spent nearly all our time trying unsuccessfully to get visas to Cuba (recently taken over by Fidel Castro), where we were to board the liner Reina del Mar. Much to my disappointment, there was no time for a side-trip to Progreso to look for M. yucatanensis.

My visits from 1969-1988 were primarily made in connection with my official research at Kew on Tradescantia and allied genera (Commelinaceae). In Mexico I was greatly helped by Hernando Sánchez-Mejorada and other botanists at the University of Mexico (UNAM) and by Dudley Gold, and was permitted to send cacti as well as Commelinaceae to Kew, export permits for cacti being obtained for me by Hernando himself. Once the UK acceded to the CITES convention the permits were no longer valid for imports of cacti from Mexico and Kew staff were warned to comply with the regulations or risk dismissal!

Mexico City to Acapulco 1969

8 Aug 1969

I had been introduced to the distinguished ethnobotanist Efraim Hernández Xolocotzi who kindly offered to take me on a quick trip from Mexico City to Acapulco. His young daughter came for the ride. After a visit to INIF (the Forestry Research Institute) to see young specimens of the newly discovered *Pinus maximartinezii* (at that time I was supposedly Kew's expert on conifers),

collecting various Commelinaceae on the way, and seeing a nice plant of *M. albilanata* guarded by a big rattle-snake (which I couldn't see till Dr X pointed it out to me, and which looked at me very contemptuously when I pitched a small pebble at it to see if it would rattle!), we stopped the night at Iguala.

9 Aug 1969

South of Puente de Mescala, the bridge over the Río Balsas near Mexcala (17:55N/99:35W), we made several stops where the road passes through the Cañon del Zopilote, the valley of a tributary of the Balsas. At the first stop I photographed a large clump of *M. beneckeii* (*M. balsasoides*) (H.7247; DH690633-4; see Bradleya 1: 115. 1983) and at the next *M. guerreronis* (H.7250; DH690635-7) and the hooked-spine phase (*M. zopilotensis* H7251). I sent small living specimens of all three to Kew but they did not long survive, also material of *Stenocereus beneckeii* (H.7248) and seedlings of *Neobuxbaumia mezcalaensis* (H.7253) (ditto, I think). At the next stop I was delighted to find the pretty *Tradescantia mirandae* (H.7252), which has attractive succulent leaves and tuberous roots. This survived and flowered at Kew to be illustrated and 'written up' in the Bot. Mag. (Curtis's Botanical Magazine 178(4): t. 615. 1972). Then we drove on to Acapulco, stopping on the way to botanize in the moister tropical zone beyond Chilpancingo.

Mexico City to Taxco and Mexcala 1974

9 Oct 1974

On this occasion my kindly driver and guide was Hernando Sánchez Mejorada. Our first stop, after turning off the highway to Toluca, was between Tenancingo and Ixtápan de la Sal, in the Barranca Calderón, 1700 m, the type locality of *M. centraliplumosa*, for me just a form of *M. spinosissima* (H.8844; see Bradleya 1: 123, fig. 124. 1983). I also collected *Echeveria waltheri* (H.8845), this being its type locality too. Then, in a barranca near Hacienda San Alejo, on the road from Ixtápan to Coatepec Harinas, 1750 m, Hernando showed me more typical *M. spinosissima* (H.8847). This had **ax** with sparse bristles, **csp** 7–12 (seedlings with some hooked), varying from deep red to dull brown.

South of Ixtapan and Tonatico we stopped where the road is almost on the edge of the vast canyon where *M. backebergiana* hangs from the vertical cliff-sides – no place for anyone with vertigo, and we could only peer down at the plants, well out of range of my camera or anyone unless on dangling on a rope. The actual place where Buchenau collected plants is not known.

Next we drove on a *brecha* (unsurfaced road) into the Barranca de Pilcaya, 1350 m, where we saw plants of *M. spinosissima* ssp. *pilcayensis* (H.8848) <50 cm or more hanging down and against the calcareous conglomerate cliffs [not easy to photograph, but I may try and enhance the one I have, DH 740914. The small plant I collected grew longer and longer at Kew until someone had the idea of hanging the pot upside down from the roof of the glasshouse. The last time I saw it, many years ago, it was at some 40 cm long, making a brave attempt to reach the floor!] Then we continued on the dirt road towards Taxco and above Tetipac, 1950 m, I collected *Echeveria fulgens* (H8849). This later flowered at Kew (CSJGB 38(1): 32–33. 1976).

Beside the road to Iguala about 16 km beyond Taxco (to which we returned at dusk to find a hotel), Hernando showed me *M. nunezii* ssp. *bella* (H.8850; DH 740920) on hard cretaceous limestone outcrops with silica, near one of the many small tributaries of the Río Balsas. [This is one of the localities mentioned by Backeberg and to the best of my knowledge, the taxon (re-described by *M. deliusiana* Shurly, CSJGB 10(4): 92 (1948) from the 'Iguala Mountains') is geographically the nearest named relative of *M. guerreronis*. Shurly actually illustrated *M. deliusiana* (l.c. 85) between photos of the straight and hooked-spine variants of that species.]

10 Oct 1974



M. nunezii ssp. *bella*. MX, Guerrero, 16 km from Taxco beside road to Iguala, 1250 m, 9 Oct 1974, H. 8850 [DH 740920]



M. guerreronis. MX, Guerrero, Cañon del Zopilote, 650 m, 10 Oct 1974, H.8851, cult. 1975 [DH 750131]

From Taxco we drove to Puente de Mescala and the Cañon del Zopilote, for me to see *M. guerreronis* again. Where we first stopped at km 49, the altimeter read 650 m and I noted that the plants were <40 cm tall, the spines hooked on the young growth, but usually lost towards the stem-base, revealing well-developed axillary bristles. [I collected a small but mature plant here (H.8851) which produced fruit the following April. Sadly it showed no desire to grow, homesick for the hot Mexcala sunshine, perhaps, and soon rotted (thanks to well-intentioned watering, I suppose). And, as a further protest, the seeds did not germinate for me.] Further up the canyon, at km 74/5 and 900 m, we looked at *M. guerreronis* again and I found what I took to be *M. igualensis* (H. 8853).

Then we started the return drive to Mexico, making a short stop at Puente de Mexcala to look at *M. beneckeii* and check the altitude (600 m). About 10 km N of Iguala we took the small side turning up to Microondas Tuxpan, where there was *M. albilanata* (H.8856; NCL pl.433.1 [DH 740933]) at 1200 m, on the limestone with *Brahea* palms.

Finally, back to Taxco, where, by the road to Lomas de Taxco, 1750 m, Hernando showed me straight- and hooked-spine forms of *M. nunezii* [ssp. *nunezii*] growing together, here on basic volcanic strata (rhyolite/andesite), and then on to Mexico City.



M. guerreronis. MX, Guerrero, Cañon del Zopilote, 650 m, 10 Oct 1974 [DH 740923], a stem-apex with dark reddish brown centrals. (For a really big clump see NCL _430.2)

Guasimas (Sonora) 1986

Myron Kimnach had arranged for Daryl Koutnik and John Trager to take me on an excursion by camper van to Sonora after the IOS Congress at The Huntington (San Marino, California). We left there on the afternoon of 22 September, making overnight stops at Yuma (Arizona) and after crossing the US/Mexican border at Nogales. We then made side-trips from Mex 15 to the east, to the type locality of *M. miegiana* (for me the northernmost form of *M. standleyi*; see NCL __ 446.6) and to the coast at San Carlos Bay, for *M. boolii* and *M. johnstonii*.

27 Sep

From San Carlos we drove back to Mex 15 and south to Guaymas and then took the turn off about 22 miles (35 km) further south, to the coastal village of Guasimas, across flatlands only a few metres above sea level, with *Pachycereus pecten-aboriginum*, *Stenocereus thurberi*, *Ferocactus emoryi* and *F. herrerae*, and *M. bocensis* (very close to its type locality, Las Bocas).

Plants I saw at there had up to c. 40 heads <9 cm diam.; **tub** c. 8 x 9 mm; **ax** slightly woolly [no bristles]; **csp** 1–2, <12–15 mm; **rsp** 8–9, <9 mm (brown form) or <13, finer (yellowish form); **fl** etc not seen. An unbranched plant 20 cm tall was also seen. Examples of the brown-spined and more yellowish-spined forms are shown in my photos, reproduced below.



M. bocensis at Guasimas, Sonora, 27 Sep 1986. 1. Multiheaded clump (centre) with *Stenocereus thurberi* [DH862631]; 2. Close-up of a single head of the brown-spined variant (c. 9 cm Ø) [DH 862635]; 3. A multi-headed clump of the pale yellowish-spined variant [DH 862632]; 4. Close-up of a single head of the clump in fig. 3 [DH 862633].

Not much rejoicing over one sinner that repenteth?

The confessions of Thomas Linzen (JMS 49(1): 5–7) make troublesome reading. At least he seems to admit that inventing *nomina nuda* has back-fired on him, but he fails to realise that, having now published them (invalidly, of course) with a sort of commentary, we are saddled with them permanently. I don't know if the compilers of *Repertorium Plantarum Succulentarum* (not to mention *Index Kewensis*) will want to be bothered with them, but as he provides brief vernacular diagnoses for several of them they may feel they have to. I'm not sure how many serious students of the genus would agree with the Editor that "var. *imperialis* is much better than TL 285"! From a scientific point of view the TL number, which associates the plant with a particular locality and a particular introduction, is much more useful – or would be if the number quoted by Dr Maddams were the same as that quoted by Linzen (TL 185)!

Anyway, it is useful to know that with his TL 238, Linzen has apparently come across an intermediate between *M. bombycina* and what I prefer to regard as its subspecies *perezdelarosae*. Perhaps those who think the latter is a distinct botanical species would like to comment?!

As for the very variable *M. huitzilopochtli*, it should be obvious by now that this taxon, distinctive as it is in the form originally named, is also linked by intermediates to all those other distinctive *Supertextae* around the Tomellin valley, notably *M. supertexta*, *M. crucigera* and *M. dixanthocentron*. Surely we do not need any more so-called scientific names? Cultivar names, instead, perhaps? After all, these do not need holotypes. (Could the "problems during the deposition of the holotype" of "*M. coyopoliana*" have had something to do with the legality or otherwise of the material intended for that purpose?).

Coming on to the taxa of series Polyedrae from SE Oaxaca (State, not "City", where I have only seen *M. karwinskiana*) there is even less need for more names. In that area there seem to me to be just two broadly recognizable though very variable Polyedrae, currently known as *M. mystax* and *M. karwinskiana* (NOT *M. multiseta*, whose true identity is a matter of guesswork, but was almost certainly not from Oaxaca). As with the widespread *M. albilanata*, there are loads of different forms, named (like Helia Bravo's *M. huajuapensis* and *M. casoí*) or unnamed, and all more or less intergrading. So to call a heap of very different-looking individuals "*M. yoloxis*", such as those illustrated on the cover and p. 15 (which, incidentally, may even include representatives of BOTH the principal taxa), is meaningless. In this instance (if the captions are correct!), it appears the plants illustrated were actually photographed in several different places. How far apart?

That brings us up against the tricky problem of those Mexican place-names. For a start, TL 313 is captioned "Maninaltepec" (which is in Guerrero). There is a "Manialtepec" in northern Oaxaca, but I expect the one TL visited was MENIALTEPEC, which is close to both San Juan Quiotepec (not the only Quiotepec, by the way!), for TL 318 (p. 15, bottom left), and to San Pedro Yolox. The other TL 318 (bottom right) gives no locality but looks as if it might be a more mature specimen of the one from Yolox (*Lacoste* 362) mentioned and illustrated by Bob Stanley (JMS 48(1): 18), which, like Michel Lacoste, I would call *M. mystax*. In any case it is sufficiently different from the other TL 318 to need a different number. Guelatao is about 35 km south of Yolox (as the crow flies) and the pale-spined TL 315 looks quite a bit different to me from the others illustrated. As for "Cieneguilla", the locality for TL 190 (cover photo), there are at least three places of that name in Oaxaca. The most likely in the context of TL's article seems to be that near Santiago Nacaltepec on the MEX 135 ascending out of the Tomellin canyon. But that's some 45 km WSW of Yolox and the plant looks very different from those on p. 15. It is actually reminiscent of *M. casoí* and *M. huajuapensis*.

Data forms for Lau 1134 and 1135

When Mark Masterson asked me for a copy of these forms, I thought Lau had not sent me a separate form for L 1135. Re-filing the form for L 1134 and the others I used while preparing these notes, however, I found he had in fact sent me one. I had missed it because the second one on the page with 1134 is 1139 and 1135 is on a page with 1144. Here are both forms:

Lau no.	Identification		Series	
1134	Mammillaria lindsey form		Macrothelae	
State	Nearest town	Village	Latitude	Longitude
Chihuahua		Divisadero	27° 30' N	107° 55' W
Altitude	Substratum	Date of collection	Moist. Habitat	Soils
2200 m.	Granite rock	May 20 month 10 year 77	Forest	Plants
Description of habitat			Date received	
<p>larger and more robust spines than the forms near Rio Urique further down. From this vantage point the whole Barranca de Cobre is visible.</p>				
Other cacti present			Accession no.	
			Vouchers: Forest seed Forest veg	
			Published data	

Lau no.	Identification		Series	
1135	Mammillaria lindseyi		Macrothelae	
State	Nearest town	Village	Latitude	Longitude
Chihuahua	Creel	Divisadero	27° 30' N	107° 43' W
Altitude	Substratum	Date of collection	Moist. Habitat	Soils
1000 m.	loam	May 20 month 10 year 77	Forest	Plants
Description of habitat			Date received	
<p>Close to the canyon bottom of Rio Urique in the Tarahumara Indian territory. Growing on sheer walls and protruding rock of conglomerate nature.</p>				
Other cacti present			Accession no.	
			Vouchers: Forest seed Forest veg	
			Published data	

This is clearly a case where there is a significant discrepancy between the information given to me by Lau and that in the AfM Feldnummer Liste (1992: 82). Both L 1134 and L 1135 are listed in the latter as occurring at 2000 m, whereas the forms say 2200 m for L 1134 and 1000 m for L 1135. Evidently, too, the habitat of L 1135 was not "Granite rocks; humus pockets".