

Plant Hunting in Mexico®

Dave Creech

SFA Mast Arboretum, P.O. Box 13000, Stephen F. Austin State University, Nacogdoches, Texas 75962

Email: dcreech@sfasu.edu

INTRODUCTION

My first plant hunting sojourns into the mountains and deserts of northern Mexico in the 1980s and 1990s were led by Lynn Lowrey (1917–1997). Lynn was a special person, a big part of the colorful history of Texas horticulturists who made a difference in the state (<http://plantanswers.tamu.edu/heroes/lowrey.html>). He made many trips into Mexico in the 1960s and 1970s, usually alone or with a friend, and always with the mission to find seed, cuttings and plants for trial in Texas. Rules for bringing plants in from Mexico were simpler back then. The U.S.D.A. A.P.H.I.S. agents at the border were sometimes cheerful and accommodating, sometimes less so. When problems occurred, Lynn would linger along the border for a few days visiting the U.S.D.A. office often to check on the progress of inspection and to encourage the release of some, if not all, of his cache. Usually it worked; sometimes it didn't.

MEXICO EXPEDITION — 11 TO 25 JUNE 2006

In early 2006, I was invited by George Hull of Mountain States Nursery, Phoenix, Arizona to participate in a 2-week expedition to Mexico. The focus of the trip was mainly agaves and other desert lilies, with several members passionate about escheverias, crassulas, and other euphorbs of great importance. While most of my interest resides in the tree and shrub world, I found it inspiring to travel with folks obsessed by plants less than the size of a salad plate. A brief summary of the route of this grueling 4023 km (2500-mile) expedition is as follows. We crossed the border at Douglas, Arizona, and drove southeast to Las Varas, then through Chihuahua, Delicias, Jimines, Gomez Palachio, Saltillo, Galeana, Linares, Matehuala, Queretaro, and then west to Fresnillo, and northwest to Durango, Hidalgo, and Hermosillo to reenter the U.S.A. at Nogales, Arizona. For readers interested in a longer and more complete travelogue, contact the author.

THE TEAM

George Hull, Mountain States Nursery, Phoenix, Arizona, and adjunct professor at Glendale Community College and the School of Landscape Architecture at Arizona State University <www.msn.com>.

Brian Kemble, Horticulturist at the Ruth Bancroft Gardens, Walnut Creek, California, with many years of experience in the wonderful world of desert plants <<http://www.ruthbancroftgarden.org/>>.

Rob Nixon, environmental assessment professional from California, and a snake, spider, and desert plant enthusiast.

Sam Joel-Schafer, a biochemistry graduate and a Spanish-proficient rebel with a cause, cheerfully struggling for a career in juggling, and at last account doing quite well as a professional gypsy in South America.

Sean Hogan, owner of Cistus Nursery, Portland, Oregon, author, lecturer, and a walking encyclopedia on anything that has something to do with a plant <www.cistus.com>.

Greg Starr, owner of Starr Nursery, Tuscon, Arizona, a fine botanist, teacher, and nurseryman of immense reputation and insight. Greg wrote the description of *Agave ovatifolia*, the rare whale's tongue Agave found by Lynn Lowrey growing between 914-m (3000-ft) and 2133-m (7000-ft) elevation in Nuevo Leon, Mexico (Starr, 2004) <www.Starr-Nursery.com>.

Janet Creech, my adventure-friendly wife, wanted to go on the trip right from the start. While skeptical, I finally relented, provided she promise to always be cheerful, no matter what — and for the most part, that is exactly what happened <www.swifthill.com>.

David Creech, Professor of Horticulture and Director of the SFA Mast Arboretum, Stephen F. Austin State University, Nacogdoches, Texas <www.arboretum.sfasu.edu>).

AGAVES ENCOUNTERED ON THIS EXPEDITION

Agave bovicornuta, cow-horn agave, found west of Yatecuh on Hwy 16, this lime green species to 0.9 m (3 ft) or more in diameter was the only sign of green in a brown June-dormant tree and scrub landscape, and, yes, the distinctive spines do look like cowhorns.

Agave celsii features a 0.6 m (2 ft) wide and tall rosette with thick fleshy light green leaves and was an understory plant and prefers shade although it can tolerate more sun at high elevations and cooler temperatures. This species has been hardy at the SFA Mast Arboretum.

Agave flexispina, hardy century plant, showy colonies found just a bit south of Villa pos Nieves. This species is diminutive, rarely reaching 46 cm (18 in.) tall and wide; features very few fleshy bluish-green leaves as the rosette.

Agave lechuguilla, lechuguilla, was everywhere during our trip and known to be very cold hardy. This short-statured, multi-blade and spiny species is known to hybridize with nearby agaves.

Agave lophantha, thorn crested agave, found near Pachuka this 0.6 m (2 ft) tall and wide agave has proven to be remarkably hardy in Texas gardens. Each leaf sports a light green stripe running the length of the blade.

Agave macroacantha, black-spined agave, while near Metztilan in a protected preserve, we encountered this agave which is more commonly found in Oaxaca much further south. A clump-forming species, the individual rosettes are 41 cm (16 in.) wide and quite beautiful.

Agave montana, mountain agave, found in bloom near Monterreal at an elevation of 2434 m (7984 ft) this hardy agave features tight rosettes of stiff leaves, to 1.8 m (6 ft) tall and 2.7 m (9 ft) wide. The species was on a mountain slope harboring beautiful old specimens of *Arbutus xalapensis*, the madrone tree, one of the most beautiful trees in the mountains of Mexico.

Agave parryi, Parry's agave, this bizarre globular artichoke-looking desert lily was found dotting the hillsides in informal singles and colonies. Parry's agave is a clump-forming species. While there, one of our team noticed that the colony we were photographing seemed to be the exact same spot that Gentry photographed in 1971 (Gentry, 1982)! Considered very hardy (-20 °C), Parry's agave is modest in size [0.5 m (to 2.5 ft) wide and tall].

Agave parryi × *Agave durangensis*, a striking colony was found after passing through Bienvendios to San Martin and taking the trail to Mina Sabina. This hybrid was found at 2896 m (9500 ft) near a cell phone tower.

Agave parryi var. *truncata*, mescal agave, with a short but obvious trunk this species is similar in form and appearance to Parry's agave.

Agave polianthiflora, mescalito, diminutive [0.3 m (1 ft) wide] and scattered on dry rocky slopes near the village of Huajamar on the road to Ocampo; excellent container plant with modest hardiness.

Agave potrerana, this rare agave was found in bloom near Las Varas on the very first day of the expedition and was perhaps the highlight of the trip. South of Ricardo Flores Migon, we found the road we wanted and made our way into the canyon. The road went from poor to terrible and finally the targets were spotted by binoculars. On the other side of the narrow canyon and at the top of a rocky slope, an amazing specimen was spotted in full bloom high up on a cliff. After a precarious climb (precarious to me), we reached the agave. With a bold sessile red-yellow-orange inflorescence on a 3.7-m (12-ft) stalk, the image struck all of us that this was indeed a fiery dragon leaning out and commanding her craggy domain. The species is found in Coahuihla and Chihuahua usually in the 1525-m (5000-ft) to 2438-m (8000-ft) range, and is reported hardy into the low-mid twenties. We took many photos, congratulated ourselves for catching such a fine specimen at its peak and then headed down to make camp — all of us convinced that this was a great start for a great trip.

Agave protoamericana, century plant, found in good numbers north of Galeana, both in the mountains and as fences in the villages. The wide, blue-leaf rosettes form large upright clumps to 1.5 m (5 ft) tall × 2.4 m (8 ft) wide and are considered very hardy. They grow fast and offset quickly in Nacogdoches, Texas.

Agave salmiana, Pulque agave, giant specimens encountered near Monterreal to 1.8 m (6 ft) tall and 3.7 m (12 ft) wide; this species is the common distilled product of choice in the mountains of the central plateau and should not be consumed without supervision.

Agave scabra, common, tough, and hardy; found in many locations from cliff-side habitats to open deserts, and performing well in the SFA Mast Arboretum.

Agave schidigera, maguey, to 0.6-m (2-ft) tall and wide with many leaves, this attractive agave was encountered on a mountain side near Mina Mercurio; I found a variegated form high on a ledge that became the object of much praise. Often confused with *A. multifilifera*.

Agave striata, narrow-leaf agave, striated agave, another common very hardy small agave to 0.9 m (3 ft) tall and wide found in northeast Mexico featuring many stiff spiny-tipped leaves that form a round rosette.

Agave stricta, hedgehog agave, found in several desert and dry hill locations with and about 76 cm (30 in.) in diameter with a rosette of numerous hard, narrow leaves with a pronounced terminal spike, similar to *A. striata* but appeared more symmetrical.

Agave victoriae-reginae 'Ferdinand Form', common in the trade, hardy, and quite variable in Mexico from open to tight forms and variation in color and size.

Agave wocomahi, Wocomahi agave, after leaving Hermosillo, we found amazing specimens right before the village of Tomochi.

Agave xylonacantha, saw leaf agave, found north of Galeana, we encountered many solitary specimens and a few colonies of this species. Rosettes are open and produce fewer leaves than other agaves.

OTHER SPECIES OF MERIT WE ENCOUNTERED

Arbutus xalapensis, Texas madrone, encountered at high elevations and always beautiful with exfoliating chocolate and tan-white bark the striking feature. While hardy, the tree is difficult in humid, wet winter regions of the U.S.A. and has failed many times at the SFA Mast Arboretum.

Buddleja marrubifolia, wooly butterfly bush, found in the San Madre Oriental mountain range at various locations. The plant features white-grayish leaves and a small, somewhat insignificant yellow-orange bloom. In several locations, we also encountered a *Buddleia*-like species that featured striking black branches and gray-green leaves.

Dasyliirion berlandieri, sotol, in the mountains near Torreon we found striking specimens dotting the roadsides. This species forms a weeping presence with large specimens featuring many leaves that arch up strongly and then weep to the ground.

Dasyliirion longissimum (syn. *D. quadrangulatum*), Mexican grass tree, or toothless sotol, was encountered on the road to Pachuka and this trunk-forming sotol appeared as giants alone on a white, barren limestone hillside. Hardy forms are reported to come from high mountain stands.

Echinocereus stramineus, straw-colored hedgehog cactus, a large colony in full bloom was encountered near Saltillo. This spiny low-growing cactus sports bright pink flowers.

Escheveria species, a major focus for two of our team members, several rare species were found at previously reported locations and additional finds made, including several *Crassula* and *Peperomia* species.

Ferocactus pilosus (syn. *F. pilosus* var. *pringlei*), Mexican fire barrel cactus, found in several mountain side locations in the San Madre Oriental range. Large specimens in bloom are breath taking and strongly protected by Mexico's conservation agencies.

***Leucophyllum* species**, cenizo, on the road to Galeana we encountered a single plant in full bloom, a carpet of lavender flowers, with the few adjacent plants showing no bloom at all. *Leucophyllum* is common throughout much of northern Mexico and high mountain forms often feature whiter, more pubescent growing tips and young leaves.

***Lonicera* species**, a *L. sempervirens*-like species was found in several locations that featured 2-inch long tubular red flowers and grew in scrub forest hillsides at high elevation.

Mahonia trifoliata, agarita, this spiny-leaved evergreen features sweet red fruit which make a great jelly and sports bright yellow flowers in the winter. The species has performed well in the SFA Mast Arboretum.

Opuntia robusta, giant prickly pear cactus, dinner plate sized blue pads with bright showy edible fruit.

Pachocereus pringlei, elephant cactus, seen near Metztitlan against a foreboding cliff as a backdrop. While not very hardy, these ancient specimens were amazing.

Quercus polymorpha, Monterrey oak, was found in the mountains near Galeana and huge trees dotted the lower slopes and ravines of canyons. This species had done well in Nacogdoches, Texas, as has *Q. rhysophylla* (loquat leaf oak), *Q. canbyi* (Canby oak), *Q. grisea* (gray oak), and a host of "unknown" oaks from Mexico.

Salvias, penstemons, and other herbaceous perennials, numerous showy species dot the roadsides, hills, and valleys of the mountains. *Salvia patens* and *S. regla* were in full bloom in several locations. A colony of *Penstemon* in bloom in the high mountains always stopped the caravan. Janet used Mason and Mason's Handbook of Mexican Roadside Flora to make quick identification easier (Mason and Mason, 1987).

***Taxodium distichum* var. *mexicanum* (syn. *T. mucronatum*)**, Montezuma cypress, encountered in several river-side locations including below the dam at Pres San Frisco Zunca in the state of Durango and a wonderful army of large trees along the river in Durango.

Tecoma angustifolia, golden bells, a tree form in full bloom was found at a park in El Raycho. George Hull has had much success in improving the species through controlled crossing of superior parents.

Yucca filifera, St. Peter's palm or tree yucca, the oldest specimens are a sight to behold in a desert landscape backlit with a setting sun.

Yucca faxoniana, Eve's needle, features lime-green, bayonet-like, wide leaves 0.6 m (2 ft) long × 5 cm (2 in.) and forms a thick trunk specimen to 4.5 m (15 ft) tall. Hardy to -20 °C.

Yucca linearifolia, confused taxonomically, but specimens found on a mountain road north of Galeana featured many leaves, forming a symmetrical head on a short trunk.

MEXICAN PLANTS PERFORMING WELL AT THE SFA MAST ARBORETUM

The following have performed well in the SFA Mast Arboretum for many years.

Acer skutchii, Mexico's mountain sugar maple, is now a 9-m (30-ft) specimen at the SFA Mast Arboretum and features flaming red/orange/yellow foliage in the fall, huge samaras, and white smooth bark. We are distributing seedlings of this tree throughout the south.

Clethra pringlei, Mexico's summersweet, has been surprisingly hardy in the SFA Mast Arboretum for years and acts almost fully evergreen with a heavy bloom show that attracts a host of bees, flies, and butterflies.

Cornus florida var. *pringlei*, Mexico's mountain dogwood, features lantern-shaped blooms, and has yet to make seed in the SFA Mast Arboretum.

Ilex decidua, deciduous holly, a form derived from seed of a San Madre Oriental mountain range provenance that is almost fully evergreen in the Mast Arboretum.

Myrospermum sousanum, arroyo sweetwood, discovered first by Lynn near Bustamente over 30 years ago and was in commerce in Texas before it was actually botanically described. A small tree with white flowers.

CONCLUSIONS

There are a few simple rules for plant hunting in Mexico. Have a passport, visa, and a birth certificate within easy reach. Traveling as a group is usually better than alone; three or four vehicles are great insurance, particularly if there's a breakdown. Walkie-talkies are a smart idea. It's helpful if someone speaks Spanish. Be prepared for challenges to the stomach; carry bottled water and food. Be polite and respectful to the citizens encountered and expect fine hospitality to be the norm. For botanists and horticulturists wishing to import plant materials, a permit is required. It's important to understand the rules and what is permitted and what's not. Seed are much easier than plants with roots. In fact, in May 2006, U.S.D.A. A.P.H.I.S. instituted a "Small Lots of Seeds Permit" rule that has greatly increased the opportunity for successful seed importation into the U.S.A.

It has taken me a long time to warm to the charm of desert plants with needle tips and horrible spines. However, over the years, I've come to accept desert lilies as a whole new order of landscaping in the southern and eastern portions of the U.S.A. As I tell my students, there really is a point to having agaves in the landscape.

SUGGESTED REFERENCES

- Gentry, H.S. 1982. Agaves of continental North America. University of Arizona Press, Tuscon, Arizona.
- Irish, M., and G. Irish. 2000. Agaves, yuccas and related plants. Timber Press, Portland, Oregon.
- Mason, C.T., and P.B. Mason. 1987. A handbook of Mexican roadside flora. University of Arizona Press, Tuscon, Arizona.
- Standley, P.C. 1920. Trees and shrubs of Mexico. Reprinted in 1982 by J. Cramer of Strauss and Cramer GmbH, Germany.
- Starr, G. 2004. *Agave ovatifolia*: the whale's tongue agave. Cactus and Succulent J. 76(6):303–307.