

San Gabriel Valley Cactus and Succulent Society

Cactus of the Month - February 2002 - Monotypic Cacti

There is a hierarchy in the world of plant names. *Cactus* is the Family name. In this family there are about a hundred genera and a little over 2000 species. In order to make the relationships of the plants to each other comprehensible, a number of smaller breakdowns are used. The family is divided into four subfamilies. Some of these subfamilies contain the primitive members of the *Cactus* family and have only a few genera. Some of the Subfamilies are large and are divided further into Tribes. The Tribes are then further divided into genera, and the genera into species. Species within a genus generally can easily interbreed. Genera are also the names in the show schedules for classes. Species are the more descriptive name. Some genera, such as *Mammillaria* have more than a hundred species, and some genera have only one. The genera that have only one are Monotypic, and are the subject of this month's competition.

Although everyone agrees on the *cactus* family, and nearly everyone agrees on the subfamilies, things get increasingly complicated and divisive after this. There have are heated debates on the relationship of plants, and whether some species or genera are valid. The division of *cacti* into genera and species is mostly based on the inspection of the flowers. The flowers are the sexual organs of the plant, and by allowing or encouraging specific pollinators, preserve the genetic purity of the genus. In the last 20 years DNA analysis has been used to revisit some of the decisions (and arguments) on the structure of genera and species. These continue. This write-up relies heavily on Anderson's **The Cactus Family** as the latest 'correct' compilation of Monotypic genera. On-going work will soon make this obsolete. The names in parentheses are other commonly used names for the same species.

Some Monotypic cacti are common, and some are so rare that they are probably not in anyone's collection. Cultivation and propagation varies, so no hints are given. Bring any you have,

particularly if it is rare, even if it wouldn't normally be show-worthy.

Monotypes from B to Y:

Bergerocactus emoryi (*Echinocereus emoryi*) from Southern California and Northern Baja, a spectacular yellow spined species.

Blossfeldia liliputana from Southern Bolivia and Northern Argentina. Other species names exist, but the species is too variable for these to hold up.

Brachycereus nesioticus from the Galapagos, a rarely seen ceroid.

Calymmanthium substerile not only Monotypic but the only member in its tribe! It is a ceroid with strange growth, and unusual flowers. It is obscure as can be from Northern Peru.

Carnegiea gigantea is the other end of the scale. Large ceroids from Arizona, California and Northern Mexico. Very common in the trade, and available at Home Depot and every tourist trap in Arizona.

Cintia knizei discovered in 1996, but not uncommon in collections was found at at 13,000 feet near Otave, Potosi, Bolivia.

Denmoza rhodacantha from Argentina (Mendoza, an anagram of the genus.) is not often seen but a very good spined species.

Escontria chiotilla an arboreal ceroid with stubby yellow flowers from tropical Mexico. The fruits are sold in Oaxaca in the summer.

Estopstoopsis dybowskii (was *Austrocephalocereus*) where this belongs is still uncertain.

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Geohintonia mexicana from the cliffs of Nuevo Leon, discovered in 1991, and may be an old natural hybrid of *Aztekium hintonii* and something yet to be identified!

Isolatocereus dumortieri widespread in tropical Mexico and known as *Cereus*, *Lemaireocereus*, *Stenocereus* and *Rathbunia* in prior lives. It was common a few years ago as *Lemaireocereus dumortieri*.

Jasminocereus thouarsii is a ceroid from the Galapagos.

Leocereus bahiensis another obscurity from Northern Bahia to Northern Central Minas Gerais Brazil.



Leuchtenbergia principis (pictured above) a very common but unique plant closely related to *Ferocactus* from the Northern and Central Chihuahuan desert.

Mammilloidia candida from Northeastern Mexico has been in and out of *Mammillaria* on a regular basis. Its out now. Bring one!

Mila caespitosa a small cactus which occurs widely in Peru. Its name is an anagram of Lima. Thirteen species were described, but there really is only one variable species.

Miqueliopuntia miquelii from the Chilean coast. Really spiny, really obscure.



Obregonia denegrii (pictured above) from the valley of Jaumave, Tamaulipas, Mexico, a beautiful artichoke like plant.

Ortegocactus macdougallii is common, although hard to grow well, from limestone rocks in Oaxaca.

Rauhocereus riosaniensis was *Browningia*, a nice white flowered ceroid from northern Peru.

Samaipaticereus corroanus, a tree like species from Samaipata, Santa Cruz Bolivia.

Stetsonia coryne grown as a living fence in high arid regions of Argentina, Bolivia and Paraguay.

Strombocactus disciformis from only a few populations in limestone cliffs in Queretareo, Hidalgo and Guanajuato Mexico.

Yungasocereus inquisivensis very nice species from La Paz Bolivia, was a *Samaipaticereus*.

Photos by Tom Vermilion

Tom Glavich January 2002