
◆ Desert Breeze ◆

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AWESOME APRIL

Its that time again, I want to thank every one who participated in last months panel. I learned a lot, and I hope you did too. Congratulations to March's Mini-Show winners:

EUPHORBIA

- 1ST. Place Gary Davies
E. buplerifolia
2ND. Place Gene Joseph
E. obesa hybrid
3RD. Place Debra Shepherd
E. esculenta

FEROCACTUS

- 1ST. Place Miles Anderson
F. cylindraceus v. lecontei crest
2ND. Place Gene Joseph
F. chrysacanthus
3RD (TIE) Mary Church
F. gracilis
Gary Davies
F. melocactiformis

This month remember to bring your Copiapoas, and/or Caudiciforms. This month your wonderful Vice-President has arranged for the one and only Miles Anderson to speak to us about training your caudiciforms, in a program called **CAUDICCIPLINE**. Do not I repeat **DO NOT** miss this next meeting.

If you or someone you know are planning a trip to California and would like to know what is happening in the area concerning Cactus and Succulent Clubs let me know. I have a copy of the show and meetingschedule of the whole California area.

If you would like more information on diatomaceous earth (last month's issue), please let me know, for I was sent moránformation on this subject.

NEIGHBORS 10 CACTUS WREN

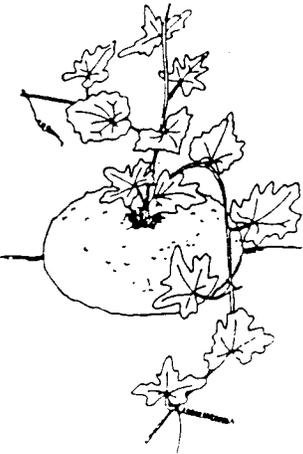
The dictionary defines 'curious' in various ways: unnecessarily inquisitive, singular, strange, arousing curiosity. Arizona's state bird, *campylorhynchus brunneicapillus*, the Cactus Wren to most of us, is byall those definitions curious.

The cactus wren is singular in that it is the largest of North America's seven species of wrens. It is strange in that it can walk on, roost in, and nest among the spiny arms of a cholla, as well as in a yucca, tree, or bush. It certainly aroused curiosity with its noisy call and flashy manner. and it seems to me that investigating the inside of my car or garage is unnecessarily inquisitive.

Cactus wrens always seem to be poking around on the ground, looking for edibles, which includes seeds and berries, invertebrates, and even small reptiles and amphibians. You may find them looking under the eaves of your house or the wheel wells of your Ford, or even picking 'roadkill' out of your car's radiator.

Cactus wren nests are ball-shaped, with an opening in the side. Depending on the season, the opening may face one way to avoid cool morning breezes in spring, or another way to deliberately catch the cool breeze on a summer afternoon. the nest, well-lined with softmaterials, is not only cool due to the side opening, but has higher humidity, helping the chicks toconserve moisture. A principal source of thamoisture is the insects which Mom brings to the nest particularly grasshoppers. In fact, mothercactus wren regulates the size of her clutch of eggs by the available supply of grasshoppers. How does she know in advance how abundant grasshoppers will be when her finally eggs hatch weeks after they are laid? Well. I told you that cactus wrens can arouse our curiosity.

By: Les Sloan



CAUDICIFORMS

This group of plants is very difficult to define, but whatever botanists or collectors have decided to include in it, they are generally very popular with enthusiasts of exotic plants. The general requirements to be a "caudiciform" are the presence of a thickened, water-storing root or stem which may be above or below ground. They are most often perennial with deciduous vines. When speaking of caudiciforms as a group, most people are speaking also of trees and shrubs with thickened trunks, more properly called a pachycaul. This definition begins to blur with plants such as a *Brachychiton* which make good bonsai plants, but if not trained, and planted in the ground, a fairly normal tree will form. One would hardly consider it a succulent. There are a great many vegetables in the grocery store produce department that indeed fit the definition of a caudiciform better than many plants that are collected as such, which only confirms the conclusion that a caudiciform is whatever you want as long as both root and stem are not slender!

Caudiciform plants are found in a great many plant families, and grow in a wide range of environments which make it impossible at best to make generalizations about growth habits and cultural requirements. Of course every one wants to know exactly when and how much to water them, how to pollinate them, seedling care, etc. It is safer to generalize the following: geophytic caudices grow fastest if left underground, in spite of the obvious drawback that you cannot admire them on a daily basis. As the plant develops, the caudex can be raised into view. They will also grow much faster if given free root run in a bed of well drained but rich humus, but few collectors have such a facility. For the pachycaul types, a better looking plant is achieved by applying the basic principles of bonsai. That is, grow the plant in pot-bound conditions (but don't forget to replace the soil on occasion for nutrients and upgrade pot size as needed for root health), and prune the top of the plant so that the energy goes into the formation of a caudex instead of the growing tips. This will also result in a more branched plant, as often multiple growing points replace each one that is terminated. It should also be mentioned that not all caudiciforms need training or manipulation, and good old fashioned patience is the only method of producing a fine specimen. For treatment of specific caudiciforms, please refer to the excellent books in our library, or ask one of the many expert growers and collectors at our club meetings. (After all, what is the club for!).

One does not have to travel to exotic lands on far away continents to view caudiciforms and pachycauls in habitat. True, many of the more spectacular species are exotic, but there are a handful of species native to the U.S. that have their own charm. Some of the only cactus caudiciforms come from our own back yards, like *Cereus greggii* (*Peniocereus*) and *Cereus striatus* (*Wilcoxia/Neoevansia*). There are also several species of *Jatropha* native to the U.S. of which at least one (*J. berlandieri* = *J. cathartica*) from Texas is definitely caudiciform. Other caudiciforms include tuberous rooted morning glories (*Ipomea*) and "Elephant Trees" (*Bursera microphylla*). The small seedlings of the southwest coral bean (*Erythrina flabelliformis*) make excellent fat-based, fleshy trunks, but in time form a tall woody shrub. Caudiciforms come in such an array of forms and cultural requirements that everyone is sure to stumble across one that they cannot pass up.

COPIAPOA-(Br. & R. 1922)

The genus *Copiapoa* was named after the town of Copiapo (the capital of the Atacama province of Chile). Most species are native to the coastal desert regions of northern and central Chile. *Copiapoa*'s distinctive features are yellow, scaly, bare or sparsely woolly flowers with a very short tube and a distinct nectar chamber. The fruit has an opening lid above. These features distinguish *Copiapoa* from *Neoporteria* (with a long floral tube) and *Weingartia* (with much larger flower scales). When not flowering, *Copiapoa* can usually be told by their very chalky or brown body color.

Authors disagree on how many species of *Copiapoa* should be recognized, ranging from 17 to 46 viable species. This difference is a result of natural variation in habitat. It has been said it is better to collect *Copiapoa* by location rather than species. Copiapoas live in extremely dense colonies separated by considerable distances. Within each population the morphological characteristics are fairly homogenous, but each population can differ greatly from one another. This explains the rash of species and variety names applied to each population. Whether these deserve taxonomic rank is questionable, as most will cross pollinate. Regardless of taxonomic standing, most Copiapoas are beautiful and worth growing.

Copiapoas are often difficult to keep alive because of their strange biology. In habitat, they may not be rained on for up to twenty years, but are watered almost daily by the very dense coastal fog that rolls in from the Pacific Ocean and condenses on the spines, then dripping onto the ground around the plant. These fogs are seasonal, depending on the temperature of the gulf stream. In cultivation, they need little water, and very porous soil, as they come from one of the world's harshest deserts. They grow very slowly, and many seedlings will not flower until they have grown for many years. These factors have made this genus rather unpopular with nurseries and collectors alike. They are, however, very beautiful plants, and with some patience a *Copiapoa* will become a striking plant in any collection. They tend to be most active during the spring and fall months, and may possibly appreciate a light shade cloth in the hottest part of the summer if they exhibit dormancy during that time.

Copiapoas range in form from huge mounds of clustered heads or stately barrel forms to tiny buttons less than an inch wide. The smaller plants with dark, soft bodies grow faster and flower more easily while the larger types are often slower, and produce very impressive spines. In the past, many of these were imported for collectors, only to grow strange misshapen growing tips on top of magnificent bodies. As with many slow growing wild plants that are put into artificial conditions, the new growth exhibits a weaker, softer, thinner shape resulting from weak or non-existent root systems and too much or too little water. However, many such plants produced side shoots which was the vegetative stock for many fine plants found in collections today. Seed is the easiest way of obtaining many species, as they are much more available than living plants.

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