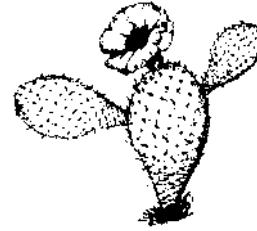




*Copiapoa columnna-alba* in habitat  
Photo by Stephen Cooley

# The Cactus Patch



*Opuntia basilaris* var. *treleasei*

Volume 8    **February 2005**    Number 2

THE NEWSLETTER OF THE BAKERSFIELD CACTUS & SUCCULENT SOCIETY

This Month's Program

## The Mystique of Socotra

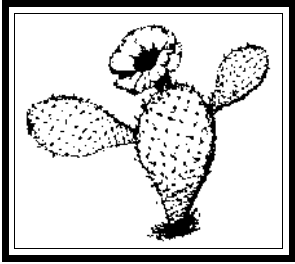
presented by **Mark Muradian**

### Monthly Meeting

**Tuesday, Feb 8**  
Olive Drive Church,  
5500 Olive drive  
at **6:30 PM**

(West of 99 freeway  
on corner of Olive drive &  
Victor street)

**It's Time to  
Pay Your  
Dues!**



# The Cactus Patch

Volume 8 Number 2

February 2005

The Cactus Patch is the official publication of the Bakersfield Cactus & Succulent Society (BCSS) of Bakersfield, California. Meetings are held on the second Tuesday of each month at the times and places noted within.

GUEST ARE ALWAYS WELCOME

### 2005 Officers

- President – Vonne Zdenek**
- Vice-President – Bonnie East**
- Treasurer - Maynard Moe**
- Secretary – Les Oxford**
- Editors - Stephen Cooley**
- Linda Cooley**

### 2005 Directors

- CSSA Representative - open**
- Past President – Matt Ekegren**

### 2005 Chairpersons

- Hospitality - Bill McDonald**
- Librarian – James Parker**
- Field Trips – Lynn McDonald**
- Historian – open**
- Show & Sale - open**

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Vonne welcomed all of us, and introduced 2 visitors. We talked about dues being due and the availability of books in our library. Lynn spoke about field trips: upcoming are trips to the desert for rocks, a workday at Windwolves, and Palm Desert. Bonnie set up a date (April29-May1) to camp in the New York Mountains. Linda spoke about the work in the ESA/Cal State cactus garden, which is progressing nicely. Vonne reinforced our educational mission in the context of the Show and Sale. Maynard reported that we had net income of \$180.56 for 2004. The newsletter is, as always, hoping for submissions from members. Stephen mentioned that there is a lady who would like help potting plants. Sidney said she will organize getting her some help. Then it was time for our program, brought to us by our own Mickey McGuire. He spoke about Insect Pests on Cacti and Succulents. He pointed out that no pesticides had been tested for use on

“our plants” and that therefore caution should be used. He covered some information about general entomology and revealed that there is a Cactus Bug that is used in Australia to control rampant *Opuntia*. The most common pests on our plants are Aphids, Whiteflies, Scale, and Mealybugs. Scale and mealybugs are especially difficult to deal with since they are encased in a waxy covering--along with the hundreds of eggs! Attempts to control these insects includes picking them off thoroughly, controlling ants, insecticidal soap, and chemical or biological pesticides.

Pesticides should be

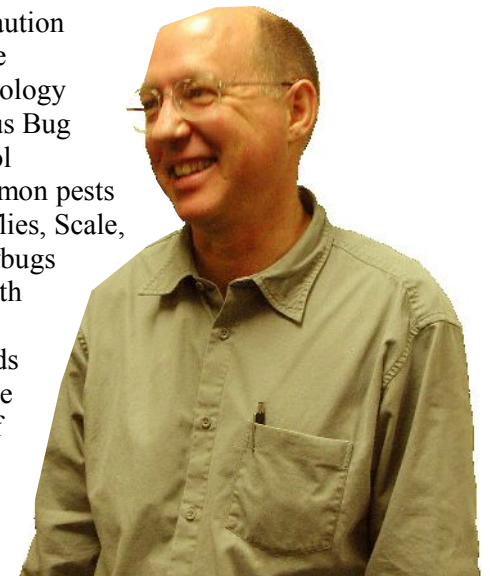


Photo by Les Oxford

used with caution and never used indoors. They may damage foliage, so test before using it all over. He pointed out that some chemical pesticides can even damage plastic pots! In general: Insecticidal Soaps are fairly safe, although they can burn foliage with repeated applications. Imidacloprid-based pesticide (“Merit”) is a systemic root drench that is long lasting, but don’t use it in the house. Malathion is a contact insecticide which has been used for a long time, so some pests are resistant to it, It smells bad and is not good for scale and mealybugs. Dimethoate (Cygon) is for use in greenhouses, but has been banned in several states. It is **toxic to humans and is not safe for home use.** “Natural” pesticides are based on citrus oils and spices. They are not for use on plants but are very safe to use in the house for the control of house pests.



Some of the raffle plants donated by Ed Colley

Fungus gnats are also problems, especially inside houses and greenhouses. The larvae feed on stuff in soil, but the adults can cause problems. You can target the larvae with Bti (Gnatrol), or use mosquito dunks which should be crushed and added to water. It takes about 2 weeks to control the gnats.

There are a few insects that are economically important: cochineal scale on prickly pears are used for a red/pink dye and cactus bees are important for pollination.

Then Mickey warned us of a new insect pest that is spreading throughout the southeast U.S. It is the Cactus Moth (*Cactoblastis cactorum*) which is native to South America and has been released in Australia and South Africa to control invasive opuntias. It is now spreading in the U.S. and will be a significant threat to our native *Opuntia* species. He showed us photos of the egg stick and the larvae, which are gregarious and form webs over entire pads. There are 52 species of *Opuntia* at risk. If you see any sign of this insect, let Mickey know!

After the program, which was very interesting, we got to look at some examples of insect pests through Mickey’s microscope. We had our raffle and finished off the goodies. It was a great meeting! Thanks to Mickey for a great presentation.

## BCSS BOARD MEETING January 26, 2005

In attendance were Maynard Moe, Bonnie East Les Oxford and Vonne Zdenek.

Discussed auction plants and will be scheduling a plant run to Woody's

Just a reminder for those who have not paid their 2005 club dues. \$15.00 for family and \$10.00 for individual.

The speaker will be Mark Muradian at our next meeting on February 8<sup>th</sup>. He will be speaking on 'SOCOTRA' and will present his pottery. All pots are handmade, one of a kind, and very artistic.

Discussed up-dating presentation boards used at the "Show & Sale."

Plants of the month are *Gasteria* & *Haworthia*.

Next Board meeting will be at Vonne Zdenek home @ 7:pm on February 22<sup>nd</sup>.

Les Oxford, Secretary

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**To have your article printed in  
The Cactus Patch get in touch with:**

Stephen Cooley, editor  
[thecactuspatch@bak.rr.com](mailto:thecactuspatch@bak.rr.com)

Linda Cooley, editor

## FEBRUARY'S PROGRAM

### The Mystique of Socotra

presented by **Mark Muradian**

Some of the long time members will remember Mark Muradian giving us a talk on Socotra more than four years ago. They will also remember just how good that talk was – which is why we have invited him back. Mark is a peach and grape grower from the Kingsburg area as well as a potter and an avid collector of just about everything.

His talk will be about a three week trip he took to Yemen and Socotra, which have some of the most remarkable succulents in the world. Mark will also bring some of his pots to sell.



Mark Muradian (left) with  
Rudolf Schultz in the Atacama desert  
Photo by Stephen Cooley

### 2005 CLUB ROSTER

The club roster for 2005 will be printed and given out at the April meeting. Rosters are given out only to paid members of the club and are not published on the internet. If you would like to change the way your information appears you need to contact me, otherwise, it will remain as printed in last year's roster. New members will have addresses, phone numbers, and emails added to the roster – contact me if you would like to add or delete anything.

## Plant of the Month

### Notes on *Haworthia* and *Gasteria*

by L. M. Moe

The plant(s) of the month for February are *Haworthia* and *Gasteria*, small succulent perennial monocot herbs confined in the wild almost exclusively to the Republic of South Africa. They are related to lilies (see below) and look like miniature aloes but, unlike aloes, have small 2-lipped white flowers. Haworthias are all rosette shaped succulents, although some have rather grassy leaves (e.g., *H. longiana*). Some can add leaves until they are somewhat columnar (*H. venosa* and



*H. glauca*), while other remain as flat rosettes. So some of the most popular Haworthias have translucent 'windows' at the end of their leaves (*H. truncata*, *H. retusa*, *H. emelyae* - see photo of *H. emelyae* from my outside garden) where photosynthesis occurs inside the leaf that is filled with a translucent jelly.

Charles Duval gave this group of plants the name *Haworthia* in 1809 to commemorate Adrian H. Haworth, an English entomologist and botanist who specialized in succulents. Since then, *Haworthia* nomenclature has been continuously changing, fueled by how different clones of the same plant can vary according to their growing conditions, and by the ease by which many species interbreed. In the literature there are over 400 species named, but currently these have been reduced to about 60 species with about 100 subspecies.

Although some Haworthias are more difficult to cultivate than others, most are very easy to grow. They require abundant bright light, but need light shade to shade to grow well. They also require a well-drained soil that approaches dryness between watering.

There are about 20 species of *Gasteria* in South Africa. Their flowers have a characteristic shape. The name "Gasteria" comes from the Latin for 'stomach', and refers to the shape of the flower.

Most gasterias tolerate low light levels, and can be grown indoors. Propagation is mostly by offsets, and leaf cuttings. A large

percentage of the Gasterias in the nursery trade are probably hybrids of uncertain origin.

A note on taxonomy: In the past, Haworthias, Aloes, Gasterias, and their relatives were treated as a tribe in the Liliaceae, a huge family of monocots that also included lilies, onions, agaves, and yuccas. All of these plants have colorful petals, arranged in threes, and six stamens.

More recently, botanists have discovered phytochemical and molecular evidence that shows this concept of Liliaceae to be artificial and unnatural (meaning that it does not conform to evolutionary relationships). A more accurate classification, one that is based on all available characteristics, reveals that the old "Liliaceae" are best classified into two major groups (or orders, in taxonomic parlance) - the LILIALES and the ASPARAGALES. Lilies, Trilliums, and a few others are in the Liliales. Onions, agaves, yuccas, haworthias, irises, and orchids are placed in the Asparagales. Within the Asparagales there are several families, two of which include succulents - the Agavaceae (Agaves, Yuccas) and the Asphodelaceae (Aloes, Gasterias, Haworthias, and Bulbines). Some experts on succulent plants tend to recognize the haworthias, gasterias and aloes, all of which are especially succulent, in a separate family - Aloaceae. Whereas, the professional taxonomic botanists tend to recognize the larger family, based on molecular data, and call it the Asphodelaceae.

A good internet site for Haworthias and Gasterias is maintained by the Haworthia Society which embraces the genera *Aloe*, *Astroloba*, *Gasteria*, *Haworthia*, related small genera and *Bulbine* together with their hybrids and cultivars: [www.cactus-mall.com/Haworthia-Society/index.html](http://www.cactus-mall.com/Haworthia-Society/index.html)

A site with many good photographs can be found at: [www.haworthia.com/Species/Haworthia.htm](http://www.haworthia.com/Species/Haworthia.htm)

Two good books are *The Illustrated Handbook of Succulent Plants: Monocotyledons* edited by Urs Eggli and *Haworthia Revisited* by Bruce Bayer (both are in our library).



BE SURE TO CHECK US OUT  
ON THE WEB AT:  
[www.BakersfieldCactus.org](http://www.BakersfieldCactus.org)



## A Quiet Christmas A Letter From Bruce

We got into the holiday spirit with a choir carol-sing at Game City Shopping center on the 17<sup>th</sup> of December.

We all wore "Santa" hats and were accompanied by guitars, sax and keyboard. Some kids wanted to know if I really was... Hey! I haven't gained that much. Then on the 20<sup>th</sup> we sang at the Hospital accompanied by Sheila Tlou, Minister of Health. "Goodies" contributed by the Vice President were given to the kids.

On Christmas we sat quietly at home and dined on tacos. On the 26<sup>th</sup>, however, we went 55 km (about 35 mi) west to Thamaga and had a scrumptious ham dinner with the Cooks, an American missionary family. After dark they set off fireworks in front of the church.

The rest of the world hit with a splash the next evening when we learned of the tsunami in the Indian Ocean. There was no direct impact (we have never been to any of the areas affected), but one of the choir members rushed off to Sri Lanka to check on friends and relatives. Botswana has sent what little aid it could. (Symbolically important- as was the Biblical widow's mite.)

On 30<sup>th</sup> Dec. the few left at the garden went down to the border of South Africa and looked (unsuccessfully) for lithops which are said to grow there. Luckily, however, we had a flat tire at Hebron right next to a small plant nursery. The woman in charge helped us look around at the wild plants and, among other things, we found a plant of *Brachystelma foetidum* which has a 24 cm (about 9.5 inch) diameter tuber!

Next day there were a few fireworks at 8:30 but most people on our street waited until midnight. It was OK, but not as good as Thamaga.



Queen Turner holding *Brachystelma foetidum* plus our guide, Rachel Dithlabe at Hebron, 30 Dec. 2004

The rainy season began on the 21<sup>st</sup> of Dec. just after water rationing was threatened. It has rained once or twice a week since, but in between, the heat really builds up. The insects also build up. I found a giant longhorn beetle at my office door (unwelcome as the grubs bore into fruit trees) and then found caterpillars of the pearl spangled moth eating the leaves on our coral trees. There was an upbeat, though. I watched a yellow crab spider catch flies attracted to hoodia flowers.

We had another Millennium Seed Bank trip on the 13<sup>th</sup> January --this time to Molepolole. Twenty km (12.5 mi) north of town we found *Aloe littoralis* and *Aloe marlothii* growing together. Unfortunately only one aloe was blooming and it was clearly *A. littoralis*. None of the reported hybrids have yet been seen by us. (Reynolds mentions them in his Aloes of South Africa.)

I've waded through a number of historic books recently. The most fascinating was Mimi and Toutou Go Forth by Giles Foden 2004, Penguin, London. It is subtitled "The bizarre battle of Lake Tanganyika" and it certainly lives up to this. At the beginning of WWI Germany controlled the east side of Lake Tanganyika, Belgium the west side and Britain the southern tip. Britain had no ships on the lake so the wacky scheme was thought up to ship two small ones to Cape Town and then send them by rail to the Belgian Congo. That went all right, but the scheme almost failed at the end when they had to haul them overland to the lake. The tiny Mimi and Toutou were then joined by a Belgian boat named, believe it or not, Fifi! Despite the greater size of the three German ships, the British actually succeeded in their mad scheme and gained control of the lake! This is the historic basis for the film The African Queen starring Katherine Hepburn and Humphrey Bogart. This was based on a novel by C.S. Forester which, we are told, has a different ending in the American and English editions (as well as a third ending in the film). I am going to hunt down both books. (I've seen the film so many times I don't need it for comparison.)

We have seen very little of Lake Tanganyika (Bujumbura, Burundi at the north end and Mpulungu, Zambia at the south), but we have spent a lot of time on Lake Malawi which is quite similar. The first naval battle of WWI actually took place there when the British got word first and managed to take over the German ship which was still docked. The land battle was just as strange. British troops went north from Karonga and managed to miss the German troops coming south. They discovered the error and met each other upon reversal! There is also a baobab (which we have seen) at Karonga with a hole at the base which leads to a hollow interior. There is a "window" higher up which was used for shooting! A bizarre fort. In the Peace Corps we were 70 miles

west of Karonga at Chitipa where there were still visible WWI trenches in 1968. We were told how the villagers fled when the Germans came and when they came back, the British were in the trenches. One of my primary school students took me to meet his grandfather who had been a carrier for the British. They followed the Germans all over what is now Tanzania and down into Mozambique but never quite caught up with them. Later I interviewed a man who had served in Burma in WWII. Malawians did get around. More recently (1968) Polly water-skied off of a Portuguese gunboat (supplied through NATO!) on Lake Malawi. Despite such misuse of U.S. aid, Mozambicans eventually did get the independence they were fighting for.

I see I've rambled on, so I leave the other books for another time.

*Bruce J. Hargreaves*

## THE SUCCULENT GARDEN AT CAL STATE

bcss garden journal, january 23, 2005

a record number of members showed up to help, on a very cold and dreary day, which turned out to be perfect for the hard work we were doing! we moved as much dirt as we could, and hope we can get a couple of truckloads more to finish the job. massive weeding was carried out, cleaning up of the area, and moving the "old world" plants over into their area was accomplished. now we should be able to start planning which plants we want to add (and subtract), put in edgings and walkways, and figure out what exactly to do with the water pump area. we are going out to the desert to gather rocks to use in the landscaping. work is going well, thanks to the help of many dedicated members. we'll meet there again soon.

*linda cooley*



# Gone to Seed

by Stephen Cooley

## PART TWO: What Do I Do Now?

After you have decided that you want to start some succulents from seed, the next step is, of course, to get some seed. Seeds of a great number of succulents are generally not hard to obtain and there are many sources. These include buying seeds from a supplier, begging from your fellow club members, and collecting them right off the plant.

If you choose to collect the seeds from the plants there are a few things to consider. You will want to be sure that the seed is mature and will germinate once you plant it. If you are not collecting from your own plants, getting permission before you do would be a good idea. If you are collecting from the wild it might be prudent to know whether it is even legal to do so. I plan on writing more about this in the future.

Another good source of seed is your fellow hobbyists. Many who have large collections often get fruits on their plants, many times without any help. People who grow plants from seed may have extra. Ask around and you'll probably wind up with some.

Perhaps the best way to get your seed is to buy it from a supplier. There are many to choose from and the best place to go is to the internet at: [www.cactus-mall.com](http://www.cactus-mall.com). Here you will find a listing of links to seed sources. However, there are two suppliers that I would like to mention here because they are good places to start. For those of you that are members of the CSSA, the SEED DEPOT is a wonderful starting point. Here you will find a wide variety of seeds that are donated by members. They are just 50 cents for each packet – which is a good (and sometimes a real bargain) price. You must be a member to order from the list, however. I have ordered many seeds from the CSSA Seed Depot and have had very good luck germinating them. The year's list is printed in the January issue of the CSSA newsletter, "To The Point," with supplements printed with subsequent issues. Directions for ordering from the Seed Depot are included with each newsletter.

The other supplier I would like to mention is MESA GARDEN. Mesa Garden is familiar to almost anyone who grows from seed, and for good reason. They have the best selection on the planet. In fact, the choices are so great that the uninitiated may find it somewhat daunting just to look through the catalog. This is the place to look if you're trying to find a particular species or even a species from a particular locale. Looking at the 2003 catalog I count 26 entries for *Conophytum pellucidum*, varying mostly in where they were collected. Mesa Garden

doesn't lump their seed together, but lets you choose which one you want (would you like the olive-green bodied *C. pellucidum* collected 15 miles west of Platbakkies, or the contractile form from 20 miles south of Kamieskroon?). The prices are good and the germination is high. I have spent far too much money buying seeds from them and I'm not likely to stop anytime soon. You can find them at [www.mesagarden.com](http://www.mesagarden.com), or write to: Mesa Garden, PO Box 72, Belen, NM 87002.

Now that you're getting some seed, you need to plant it. Before you plant it, let's talk about what the seed needs to germinate. Basically, seeds need moisture, warmth, and air to germinate. For many succulents there is another requirement, light. Most Cacti and Mesembs require that the seed be in the light in order to have good germination while some others, like *Aloe*, *Agave*, and *Pachypodium* do not. Another factor you need to consider in planting your seed is disease. There are a number of diseases (usually fungal) that can attack your seed and seedlings. Cleanliness usually does the trick though there are pesticides that will help as well.

Now a word or two about soil. There are as many soil recipes as there are growers so I'm not going to get too involved here. The important part about your potting soil is that it drains well. This usually means the addition of perlite, coarse sand, or pumice to your mix. Your mix can either be organic (peat moss, coir, leaf mold, etc) or mineral (garden loam, sand). Personally, I have had my best results using a strictly mineral soil, adding no organic components. An important part here is that your soil be sterile. Store bought mixes as well as perlite tend to be sterile right out of the bag. Other ingredients will need to be sterilized. To do this, place your wet mix in an oven roasting bag, seal it, and cook it in a low oven (160-200F) until the inside temperature is to about 180F. I have also had good results by placing a clear plastic bag of wet soil in the hot sun and turning it everyday for about four days.

Now you're almost ready to start planting your seeds. First, let's clean the pots. Any pot will do as long as it is clean. By clean I mean that it has been washed out to remove any clinging matter and then sprayed with a 10% bleach solution. The pots then should be put in a plastic bag, sealed, and let sit overnight. Cleaning your pots and soil means you probably won't need any other disease controls.

Okay, let's plant. Take a pot, fill it with moistened soil, then settle the soil by gently picking the pot up about an inch and letting it fall back down. If your planting a species that does not require light, then leave enough room so that you can cover the seed with about one quarter inch of soil. Now, sprinkle your seed on the soil, covering it if necessary (Many growers will now also sprinkle the light requiring species with a

very small amount of sand – I wait until after germination). Remember, almost all Cacti and Mesembs require light to germinate. Now, water the seeds by placing the pot in a tray of water. I also tend to spray water on the surface seeds just to make sure they're in contact with the soil. When the soil is wet, remove the pot from the tray and allow it to drain a bit. At this point, the pot needs to be covered to insure that the moisture is retained. This is easily done by placing the pot in a zip-top clear plastic bag. Any other way of covering the top of the pot should work as long as the light can get through. Place the covered pot in a warm bright area, not in full sun. This could be a window sill or fluorescent lights (which I use and they work very well). For most species, a temperature of 75F is good. Some like it hotter and many of the Mesembs like it cooler, but household temperatures are usually okay. Your new babies should arrive in about 7 days (or as little as 1 day or as much as 1 year, depending on the species and freshness of the seed).

Next Month: PART THREE: It's Alive!

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If you have any questions about this article feel free to contact me. Also, when you feel like you're ready to try some seeds let me know and I'll let you have some of mine. Email me at [thecactuspatch@bak.rr.com](mailto:thecactuspatch@bak.rr.com) or talk to me at the meeting.



## FIELD TRIPS

### Saturday, March 5

Rock Gathering Trip Led by Dan French  
(details to be announced)

### March 19-21

Living Desert Museum & Botanic Gardens, Palm Canyon, Moorten Garden, Palm Springs, Desert Hot Springs, Laguna Canyon Nursery

### Saturday, April 16

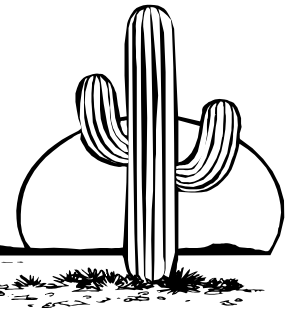
Windwolves Nature Preserve  
(details to be announced)

### April 16-May 1

New York Mountains camping

Lynn McDonald

# UPCOMING EVENTS



## **BAKERSFIELD CACTUS AND SUCCULENT SOCIETY EVENTS**

Feb 8 BCSS Meeting 6:30 pm Olive Dr. Church, 5500 Olive Dr.

SPEAKER: Mark Muradian

PROGRAM: Socotra

Feb 22 BCSS Board Meeting -- Vonne's house

Mar 8 BCSS Meeting 6:30 pm Olive Dr. Church, 5500 Olive Dr.

SPEAKER: Rob Skillin

PROGRAM: Chile

Mar 19-21 BCSS Field Trip: Living Desert Museum & Botanic

Gardens, Palm Canyon, Moorten Botanic Garden, Palm Springs, Desert Hot Springs, Laguna Canyon Nursery

Mar 25 BCSS Board Meeting -- Les' house

Apr BCSS Field Trip: Windwolves Preserve date to be announced

Apr 12 BCSS Meeting 6:30 pm Olive Dr. Church, 5500 Olive Dr.

Apr 26 BCSS Board Meeting

Apr 29-May 1 BCSS Field Trip: New York Mountains camping

May 10 BCSS Meeting 6:30 pm Olive Dr. Church, 5500 Olive Dr.

May 31 BCSS Board Meeting

June 14 BCSS Meeting 6:30 pm Olive Dr. Church, 5500 Olive Dr.

June 28 BCSS Board Meeting

## **OTHER CACTUS AND SUCCULENT EVENTS**

July 1-3 CSSA Annual Show & Sale at the Huntington

Aug 5-11 CSSA Biennial Convention. Scottsdale Plaza Resort, Phoenix.

Aug 20-21 20<sup>th</sup> Intercity Show & Sale

Los Angeles Arboretum. 9am-5pm both days.

Contact Tom Glavich

Sept 3 Huntington Symposium, Huntington Botanical Gardens