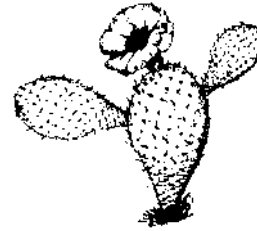


The Bakersfield Cactus & Succulent Society  
% Stephen Cooley, editor  
thecactuspatch@bak.rr.com



Plant-Of-The-Month *Mammillaria*  
brought in by Rob Skillin

# The Cactus Patch



*Opuntia basilaris var. treleasei*

Volume 7    **April 2004**    Number 4

THE NEWSLETTER OF THE BAKERSFIELD CACTUS & SUCCULENT SOCIETY

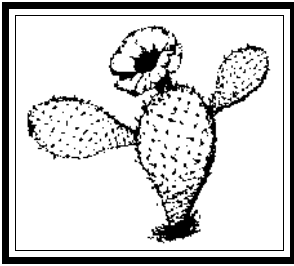
This Month's Program  
**A Cactus By  
Any Other Name**  
Presented by Maynard Moe

## Monthly Meeting

**Tuesday, April 13**  
Olive Drive Church,  
5500 Olive drive  
at **6:30 PM**

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

**YARD  
SALE!**  
**MAY 1<sup>st</sup>**



# The Cactus Patch

Volume 7    Number 4  
April 2004

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

## 2004 Officers

**President – Matt Ekegren**  
**Vice-President – Vonne Zdneck**  
**Treasurer - Maynard Moe**  
**Secretary – Les Oxford**  
**Editors - Stephen Cooley**  
**Linda Cooley**

## 2004 Directors

**CSSA Representative - open**  
**Past President – Bonnie East**

## 2004 Chairpersons

**Hospitality - Bill McDonald**  
**Librarian – James Parker**  
**Field Trips – Lynn McDonald**  
**Cal State Garden – Bonnie East**  
**Historian – open**  
**Show & Sale - open**

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Matt called the meeting at 7:pm. Announcements of up and coming events:

1. The BCSS annual yard sale will be on May 1<sup>st</sup>, 2004 at Rob's home, 2910 22<sup>nd</sup> Street. This is a major resource to sweeten our cash flow. Any donations will be appreciated. Dig into your garage and closets for anything that can bring cash into our treasury. This would include plants and anything of value that you do not need anymore.
2. Maynard gave a treasury report as a negative cash flow, meaning we need to bring in some cash (yard/plant sales) to continue to be active in our community
3. Lynn announced a field trip to Ojai on May 15<sup>th</sup> as a "Historic Tour." The tour starts from Home Depot parking lot at 7am. (District Blvd. And Gosford Rd.) Stops at local nurseries and pot places.
4. 4<sup>th</sup> annual potters sale, March 27<sup>th</sup> @ Woody's featuring Don Hunt, Mark Muradian and Joe Wujcik artistry. They bring their talents together in pottery design.
5. A plant auction is coming up in Riverside. More details coming.
6. A baby shower is planned for Matt and Silvia Ekegren on Saturday, March 20<sup>th</sup> at Bill and Lynn McDonalds house, 8621 Oak Branch Avenue, 665-211. All invited to this special occasion.
7. The BSCC Monthly board meeting will be held at Matt and Silvia home, 9017 Duncanson Dr. on March 30<sup>th</sup>.

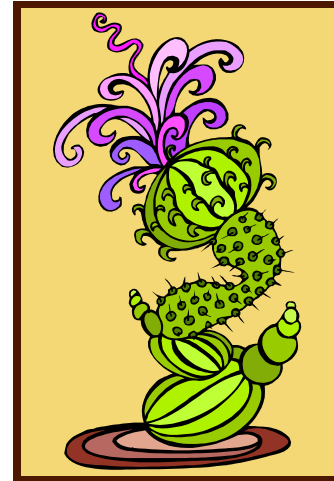
8. Bonnie East could use volunteers to move dirt and help design the cactus gardens at CSUB. If interested, give Bonnie a call at 665-2689

A very good presentation was made by Rob Skillin on his travels to Mexico to photograph many varieties of cacti. A very special THANKS from BCSS.

*Les Oxford*

Membership in the Bakersfield Cactus & Succulent Society costs \$10 per year for an individual and only \$15 a year for a family. This extraordinarily reasonable price not only includes twelve issues of *The Cactus Patch* but entitles you to participate in club field trips to far-off (out-of-town) and exotic places (more exotic than Bakersfield). You will also receive a nifty name tag that will be your ticket to the members only plant raffle held every meeting featuring the best plant from the raffle table! All this is in addition to the wonderful programs and people at the meetings. To become a member contact:

Maynard Moe, treasurer  
[Lithops44@bak.rr.com](mailto:Lithops44@bak.rr.com)



## Plant of the Month

### ***DIVERSITY***

Bring a variety of succulents

### **EXECUTIVE BOARD**

### **MEETING NOTES**

**March 30, 2004**

The BCSS board meeting was opened by Matt Ekegren and first on the agenda was planning for the annual yard sale on May 1-2 at Rob & Terry Skillin's house. (631-0626)

It's time to clean out your closets and garage for any items that can generate any kind of value for BCSS. Also bring plants and/or plant cuttings. The annual yard sale is a GREAT way to add to our treasury to keep our many projects going.

All items must be delivered no later than April 29<sup>th</sup>. We need volunteers to help tag and price items on April 30<sup>th</sup>. Also, we need the following:

- 1 A keeper of the money pouch.
- 2 Volunteers to make signage.
- 3 Sign-up for working the yard sale.
- 4 Design a "Flyer."
- 5 Bring snacks and beverages.

Let's all pitch in and make this annual yard sale the best ever!

Next BCSS meeting April 13<sup>th</sup> at Olive Drive Church. 6:30pm

*Les Oxford*



## APRIL'S PROGRAM

# A Cactus By Any Other Name, is still a cactus (or, is it?)

by L. M. Moe

A cactus by any other name is still a cactus. Really? Some people call *Euphorbia* a cactus. Also, why isn't *Dactyloopsis* a *Phyllobolus*? Is *Pediocactus* really a *Turbinicarpus*? Is the Bakersfield cactus *Opuntia treleasei*? What about fishhook cactus, is it a *Mammillaria* or a *Sclerocactus*? Is a pincushion cactus a *Mammillaria*, *Escobaria*, *Sclerocactus*, *Pediocactus*, *Corypantha*, or *Echinocactus*? (Or, for that matter, a *Diapensia*, *Knautia*, *Leucospermum*, *Scabiosa* or *Navarretia* ... all have pincushion plant as a common name.) What's in a name anyway?

Botanical Latin and plant names in 20 minutes (for Matt, 40 minutes for the rest of us).

Scientific (Latin) plant names can seem very confusing (and hard to pronounce), but actually it is the common name that is most likely to mislead. A riveting talk will provide you with an explanation how and why scientific plant names are important, why they keep on changing and what they mean.

## THE BCSS GARDEN AT CAL STATE

The work has begun at OUR GARDEN in FACT @ CSUB. We need people to help move dirt in wheelbarrows & to continue building the concrete block wall.

MEET ON SATURDAYS FROM 0800-1100 for a short, productive morning's work, please.

Call Bonnie, Maynard, Stephen or Lynn for directions. Hope to see you there.

The Committee

## LIMBO A Letter From Bruce



I was surprised when I went to a Heads of Division meeting on 23 Feb. and was told that I was on leave. I knew that my contract ended on 5 Feb., but I assumed I would keep working until I had my benefits as in the past. Although I argued that I couldn't leave without money or an air ticket, I was told I was on unpaid leave until I started a new contract. So I am in limbo.

On Jamie's birthday (9<sup>th</sup> March) I finally got the money owed to me, so we can afford a visit to Calif., but I'm still trying to get the plane ticket which is part of the contract.

I applied for both the money and plane ticket on 24 Dec., the day I was promised a new contract!

I now have a new contract, but I need the home leave before starting it. If you enjoy bureaucracy, Botswana is the place for you.

Meanwhile, I am writing papers and continuing research as well as



*Orbea rogersii* hybrid

enjoying other activities. One joyful bit of research news is that an *Orbea* which I collected in January near the Tswapong Hills bloomed and turned out to be a hybrid with *Orbea rogersii* as one parent. I had no idea what the other parent could be until Queen Turner, head of the herbarium came back from the same area on the 13<sup>th</sup> of March with

a blooming *Orbea* that is almost certainly the other parent. Unfortunately it does not match anything known in Botswana. I have sent a picture to Pretoria for help. It has been identified as *Orbea maculata* and there is already a specimen in Pretoria from Botswana.

On Sunday 7<sup>th</sup> March we went on a walk south of town with the bird club. It was led by Jo Tayler who teaches mycology (fungi) at the

university. It was a great day for fungus as we have had more than the average rain in last month.

Among those seen were little birds nest fungi which look like tiny eggs in a cup. We also saw lots of birds and Polly even found *Stapelia gigantea* in bud. Unfortunately, a lot of tiny "seed" ticks found us in high grass.



*Orbea maculata*

Polly managed to get dozens, while I only had a few. We picked them off, but they left inflamed spots. Polly treated some with hydrocortisone and some (at my suggestion) with juice from *Bulbine frutescens* (a South African species common in gardens here). Unfortunately the hydrocortisone worked better. The Bird Club also had a BBQ on the 19th with hilarious accounts from people who actually admitted getting lost. (Most of us pretend that never happens.)

We also went to see Spy Kids III (a lousy movie) because it was the first 3-D movie in Botswana. Both of us had trouble with the 3-D (the old red and green glasses kind). Polly was born cross-eyed and is virtually one-eyed. I have two good eyes now, but the images are not vertically aligned, a problem I've always had. With effort I can get the images to converge, but during the 3-D movie they kept splitting. I'm told I can get prismatic lenses to correct this..

I have been acknowledged as a contributor on a new book on the Commiphoras (all I did was send distribution maps for Botswana). It is Southern Africa Commiphora by Marthinus Steyn (2003, by the author, Arcadia, South Africa). I don't know the price as my copy was free. Each species is well illustrated with pictures of the tree, the flower, the fruit and the leaf. There is also a distribution map for each. For those not familiar with this genus, it is the genus which includes Myrrh of Biblical fame. It is in the Burseraceae which includes the elephant trees (*Bursera* species) of North America.

*Bruce J. Hargreaves*

## GORDON SANFORD REMEMBERED

By Stephen Cooley

We are all saddened to hear that long time BCSS member Gordon Sanford passed away on March 31<sup>st</sup>.

Gordon Sanford was not just a long-time member, but he was one of the original, founding members of The Bakersfield Cactus & Succulent Society. Gordon was the club's first treasurer and was instrumental in getting the bylaws defined and written down. Along with others he helped keep our fledgling club moving forward. Early on he pushed the idea that our little club should have a newsletter. In January 1998 he took the initiative and produced the first issue of *The Cactus Patch*. From the start Gordon made this newsletter into more than just the one or two page information sheet that many other, often larger, clubs have. His talent and hard work quickly turned our bimonthly newsletter into an every month event (In fact, the first issue was the only bimonthly issue). Gordon continued as editor through 1999 and in January 2000 I took over and realized immediately how much work he had put into it.

Gordon was also a very active member of our group. He was a regular attendee of our monthly meetings, joined us on many field trips and always worked the Show & Sale. He had a fondness for our local endangered cactus *Opuntia basilaris* var. *treleasei*, the "Bakersfield Cactus." He would often update us when it was flowering and once even led an informal field trip to, of all places, the East Hills Mall (where there is a colony of the Bakersfield Cactus).

I am sure Gordon was proud of how well the Bakersfield Cactus & Succulent Society has done since the first dozen or so people showed up back in 1997. Those of us that were there know just how much he helped to make this club successful, and we will think of him every time we attend a meeting.



Freda & Gordon Sanford

## What's in a Name?

By Stan Korabel

from The Beaver Tale -- Southern Nevada C&SS

Recently I deviated from my usual evening ritual of studying the works of the 18<sup>th</sup> and 19<sup>th</sup> century philosophers while I listened to my collection of Gregorian chants. Instead I watched a TV special entitled "Girls Gone Wild – Retrospective and Critique". As I was taking notes I suddenly remembered that 250 years ago Carl Vonlinne (Linnagus) introduced Binary Nomenclature, the method in which organisms are classified with two names, genus and species. A set of rules, universally accepted by taxonomists governs the naming of plants – the International Code of Botanical Nomenclature.

Now I think that all of us are familiar with the concept. The problem for most of us is the Latin and Greek nomenclature. While I don't want to play down the difficulties there are some ways to overcome them. One of the best is a good dictionary (good=5lbs). My new Webster's Dictionary (Lexicon Publisher) has many botanical terms. You will find words such as Glauca=sea green, Glomerate=clump forming, Seta=bristle, and Cephalo=head and many more. Did you know that Alexander's favorite horse was named Bucephala, "Hammer Head"? When I lived on Floogle Street one of the guys went by the name of Hammer-the simplest tool known to man. (took me a long time to get there).

Another source is our library. Many have a Glossary of Terms. One of the best is "Vygies, Gems of the Veldt". Attached is a list of some words (prefix, suffix) you might come across.

I'll end this with botuliform=shaped like a sausage. Otto Von Bismark, one of the most savvy politicians of the 1800's, said "There are two things you don't want to know—how sausages are made and how laws are made".

Caule=stem  
Crassa=thick  
Fruiticose=shrub-like  
Poella, pulchra, pulchella=beautiful  
Truncate=cut off  
Carpus=fruit  
Platy=flat  
Fili=thread like  
Tenuis=thin or hair like  
Glabrous=smooth, hairless

Oides=resembling also Opsis  
A=without  
Ab=without  
Carpus=fruit  
Acantha=spine  
Caule=stem  
Hamatus=hooked  
Cephalo=head  
Dentate=sharp teeth  
Digitate=with fingers

Macro=large  
Micro=small (also Parvi)  
Opsis & Oides=closely resembling  
Phyte=plant  
Costate=ribbed  
Phyllum=leaf or plant  
Pauci=few  
Brachy=short, also Brevi  
Pauci=few  
Pectinate=comb like (spines)  
Pubescent, Villose, Pilose, Tomentose=hair like (in varying degrees)  
Echinote=with spines or horns  
Eriv=wooly Sycefig  
Acantha=spined  
Beruliform=sausage  
Rhiza=roots  
Pachy=thick  
Phytum=plant  
Parvi=small  
Poly=many  
Rectus=straight

## In Defense of *Dactyloopsis*

By Matthew R. Opel

Dept. Ecology and Evolutionary Biology,  
University of Connecticut, Storrs

reprinted from the  
San Francisco Succulent and Cactus Society Newsletter

For connoisseurs of the succulent Aizoaceae, or "mesembs," there are several compellingly odd, but difficult to cultivate species and genera that have taken on an almost mythical quality. These vegetable Maltese Falcons include *Muiria hortenseae*, *Conophytum burgeri* and *Didymaotus lapidiformis*, but surely the strangest and most horticulturally recalcitrant of the bunch is *Dactyloopsis digitata*, the finger mesemb. So, it came as something of a shock to the community of succulent-plant enthusiasts when *Dactyloopsis* was subsumed into *Phyllobolus* (Gerbaulet, 1997). Many of us never did quite get around to changing our labels to *Phyllobolus digitatus*, though, and in this article I will defend the continued use of *Dactyloopsis*, on grounds other than that of simple inertia.

Before getting into my defense of *Dactyloopsis*, I should summarize the arguments that were used to justify the transfer to *Phyllobolus*. The reasoning was based on the discipline of cladistics, which is a method of discovering relationships among organisms, and reconstructing evolutionary trees (cladograms). In cladistics, species are grouped together if they have synapomorphies, which are shared derived characteristics not present in other, putatively related groups. One goal of a cladistic analysis is to find "monophyletic" groups – groups of species that include all of the descendants of a common ancestor, and exclude representatives from all

other evolutionary lineages. It is the over-whelming consensus among modern biologists that cladistics is the best way to determine the evolutionary history of living things, and that classification schemes should only recognize taxa that are monophyletic.

No-one, including Gerbaulet, contests the idea that *Dactyloopsis* is a monophyletic entity. Depending upon whom you talk to, the group contains either two species (*D. digitata*, the large-leaved southern form, and *D. littlewoodii*, the small-leaved northern form)(van Jaarsveld and Pienaar, 2000), or a single, variable species (Gerbaulet, 2001). The two forms are mainly distinguished by size, and share synapomorphies not seen in any other genus in their subfamily (the Mesembryanthemoideae): large, hyper-succulent cylindrical leaves, and tiny white flowers with filamentous petals that tend to keep their form as they dry out. The reason why *Dactyloopsis* was sunk by Gerbaulet is that she claimed that it had other synapomorphies in common with *Phyllobolus*, in particular the dwarf, tuberous relatives of *P. resurgens*. Although Gerbaulet did not present a formal cladistic analysis, she contended that *Dactyloopsis* was nested within the evolutionary branch (clade) containing *P. resurgens*, and thus that *Phyllobolus* would not be a monophyletic genus if *Dactyloopsis* was maintained as a separate entity (Gerbaulet, 1997).

Based upon gross morphology, it is difficult to see what characters could possibly link *Dactyloopsis* to *Phyllobolus*: the succulent, persistent green stems, smooth seeds, and smooth, waxy leaves of *Dactyloopsis* contrast strongly with the ephemeral stems, rough seeds and warty, bladder-cell covered leaves of the *P. resurgens* group. The strength of Gerbaulet's (1997) argument lies instead with anatomical



*Dactyloopsis* in the Knersvlakte (Quartz Fields) of South Africa  
Photo by Maynard Moe

characteristics. The stems and roots of *Dactyloopsis*, and the tubers of geophytic *Phyllobolus* species, thicken via the production of successive rings of vascular tissue that consists mostly of spongy, water-storing parenchyma cells. These organs also become covered by a well-developed periderm (an outer layer of protective cork cells) in both genera. However, the status of these characters as synapomorphies unique to these two genera is dubious. All perennial Mesembryanthemoideae that I have examined thicken their stems and roots via successive cambia giving rise to concentric rings of vascular tissue, which tends to be mostly parenchyma in organs that do not need to support themselves mechanically, such as the stems of a cushion plant like *Dactyloopsis* or the subterranean tubers of *Phyllobolus*. A periderm, too, seems to be developed to a greater or lesser extent in all of the genera of perennial mesembs that show secondary thickening growth in roots or stems. I would suggest that the anatomical characters used to sink *Dactyloopsis* into *Phyllobolus* are not synapomorphies of these genera at all, but ancestral characters (symplesiomorphies) present in a wide variety of genera in the subfamily, and thus uninformative for determining evolutionary relationships.

If the link between *Dactyloopsis* and *Phyllobolus* is tenuous, what are the closest relatives (sister groups) to *Dactyloopsis*? The extreme morphological reduction of dwarf succulents like *Dactyloopsis* can make the task of identifying synapomorphies difficult. However, I have found several characters that indicate a strong link to *Aspazoma*, an obscure, monotypic genus of small shrubs (Opel, 2002). A relationship between *Dactyloopsis* and *Aspazoma* was first suggested almost half a century ago by Schwantes (1957), who placed both genera in the same subtribe.

The most suggestive characteristics linking *Dactyloopsis* and *Aspazoma* involve the structure of the leaves. In both genera, the epidermal bladder cells that are present in most Mesembryanthemoideae have been lost, and the leaves are quite smooth and waxy. Both genera have sheathing leaf bases that surround the stem, a character that does not occur in any other genus in the subfamily. Moreover, the function of the sheathing leaf bases is the same in both genera: the leaves dry up to form a protective tunic that covers the succulent stems during the summer dormant period. This mode of dormancy is unique in the family Aizoaceae, though many genera (e.g. *Conophytum*) show an analogous strategy, in which succulent leaves (rather than stems) are protected by a papery tunic of old leaves during the dry season.

Another character that suggests that *Dactyloopsis* is related to *Aspazoma*, and not *Phyllobolus*, is their succulent stems, which have a layer of green chlorenchyma in their cortex, and prominent bladder cells

on their epidermis. The stems remain succulent for two growing seasons, and then lose their green cortex and develop a periderm. Nothing similar is known from *Phyllobolus*, though the same type of stem morphology and development occurs in the genera that are commonly considered to be related to *Aspazoma*: *Psilocaulon* and *Brownanthus* (secondary growth in the stems of these shrubby genera is woody, consisting mainly of fibers and tracheids, whereas the cambia of *Dactyloopsis* mostly produce soft parenchyma). In addition, *Dactyloopsis* and *Aspazoma* both have smooth-coated seeds, while seed coats in *Phyllobolus* tend to be rough. In terms of overall shape, the elongated pyriform seeds of *Dactyloopsis* have little in common with either the robust, D-shaped seeds of *Phyllobolus* or the large, flattened seeds of *Aspazoma*.

Given the available morphological evidence, it seems most reasonable to maintain *Dactyloopsis* as a separate genus, closely related to *Aspazoma*, but easily distinguished by its extreme succulence and unusual floral structure. Further research is required to determine how the hypothesized *Dactyloopsis/Aspazoma* clade falls out with respect to other allied genera, such as *Brownanthus*, and it is probably safe to assume that more rearrangements will need to be made before the taxonomy of this group settles into a stable state.

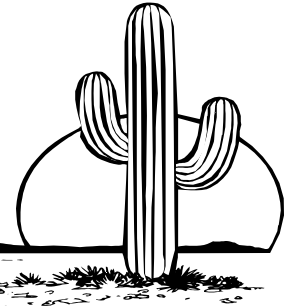
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- Opel, M.R. 2002. *Aspazoma* in the veld and under glass. Mesemb Study Group Bulletin **17**: 59-60.
- Schwantes, G. 1957. **Flowering Stones and Mid-day Flowers**. Benn, London.
- van Jaarsveld, E.J. and de Villiers Pienaar, U. 2000. **Vygies: Gems of the Veld**. Cactus & Co. Libri, Venegono, Italy.



The 2004 Club Roster will be available at the April Meeting. Those who cannot attend the meeting will have theirs mailed. Should you find a mistake please notify the editor so it can be corrected.

Our ANNUAL YARD SALE is May 1<sup>st</sup>! We always do well with this fund raiser so clean out your attics/garages/closets/ and donate your stuff.

## UPCOMING EVENTS



- Apr 13 BCSS meeting.** Olive Drive Church 6:30pm
- Apr 25** South Bay Epiphyllum Society Show & Sale.  
South Coast Botanical Gardens, 26300 Crenshaw Blvd, Palos Verdes.
- May 1 BCSS Annual Yard Sale**
- May 1-2** Sunset Succulent Society Annual Show & Sale, Veterans Memorial Center, Garden Rm. 4117 Overland Ave, Culver City
- May 3-5** Sonoran V Conference, Tucson.  
Info: Dick Wiedhopf [wiedhopfg@pharmacy.arizona.edu](mailto:wiedhopfg@pharmacy.arizona.edu)
- May 11 BCSS meeting.** CSUB Cactus Garden
- May 15 BCSS Field Trip - Ojai Loop**
- May 15-16** Epiphyllum Society Sale (15<sup>th</sup>-16<sup>th</sup>) and Show (16<sup>th</sup>).  
LA County Arboretum 301 N. Baldwin Ave, Arcadia
- May 16** Huntington Botanical Garden Spring Sale 1151 Oxford Rd, San Marino
- May 22-23** 28<sup>th</sup> Gates C&SS Show & Sale, 9-4 Sat. Show starts at 1pm.  
Jurupa Mts Cultural Center, 7621 Granite Hills Dr, Glen Avon, CA
- June 5-6** San Diego C&SS Show & Sale, Balboa Park Room 101
- June 8 BCSS meeting.** CSUB Cactus Garden
- July 1-3 CSSA Show & Sale** Huntington Botanical Garden (HBG closed July 4, admission free July 1)
- Aug 14-15 Intercity Show & Sale** 9am-5pm both days. LA Arboretum  
Info: Tom Glavich

For more information concerning calendar events, contact the editors  
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Linda Cooley, editor