
CENTRAL SPINE

Newsletter of the

CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY

JULY, 2001

FROM YOUR PRESIDENT—JULY 2001

REMEMBER!!! We have a SPECIAL MEETING this month on SATURDAY JULY 14 (Bastille Day) at 2 p.m. in Webster Auditorium to hear Suzanne and Tony Mace talk about their travels in succulent environs. They will be on their way back from the CSSA Convention in Los Angeles to England, where Tony runs the Cactus Mall (<http://www.cactus-mall.com>), and Suzanne runs the Mesemb Study Group (<http://www.cactus-mall.com/msg/>).

Our REGULAR JULY MEETING will be SUNDAY JULY 29 at 2 p.m. in Webster Auditorium. Wendy Hodgson will speak on surveying the plants along the Arizona Trail.

We will have cultural Q&A at both meetings.

It's hot by now. Many cacti are semi- to fully-dormant for the summer. I stop watering *Copiapoa*, *Lobivia*, many *Mammillaria*, *Rebutia*, and *Sulcorebutia* until it cools down in September or October. I reduce watering *Echinocereus*. I keep watering *Arequipa*, *Borzicactus*, *Cleistocactus*, *Echinopsis*, *Epithelantha*, *Ferocactus*, *Frailea*, *Gymnocalycium*, *Loxanthocereus*, *Matucana*, *Myrtillocactus*, *Notocactus*, *Opuntia* and kin, *Thelocactus*, *Turbincarpus*, all the Mexican and South American columnars, and all the Baja cacti, including the mams.



Gymnocalycium ferrari (Editor plant)

The leafy caudiciforms love this weather. Keep watering and fertilizing them heavily: *Adenia*, *Adenium*, *Cephalopentandra*, *Ibervillea*, *Ipomoea*, *Momordica*.

See my article below for how to treat the winter-growing mesembs in the summer. As for the summer (*Lithops*) and opportunistic growers (*Didymaotus*, *Lapidaria*, *Rhombophyllum*) keep watering as they dry out. Be sure they're in deep pots.

Quite a few of us will be going to the CSSA Convention in Los Angeles next weekend. We'll let you know what we learned when we get back. There's still time to sign up: <http://www.cssainc.org>

Leo M

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PLANTS OF THE MONTH— WINTER-GROWING MESEMBS THROUGH THE YEAR

Leo M



*Lithops gesinae*¹

The vast quantity of mesembs come from areas of South Africa subject to what is called a

Mediterranean climate. Those of you who have not lived in coastal California, South Africa, or the actual Mediterranean region will not have experienced this climate, but it can be understood and your plants can thrive. Some mesembs come from mostly summer rainfall areas. Most *Lithops* are from this climate. A few come from areas receiving both winter and summer rain, and will grow opportunistically whenever there is rain. Many Baja California plants are like this, too.

Most of these plants grow in small niches in habitat. However, since they can use a lot of water when in active growth, and to keep the roots cooler in the summer, I like to use deep pots for all of them. I have not had good luck with anything relatively shallower than a normal 4" (10 cm) clay pot. Even small plants go into deep 4" (10 cm) pots.

Most in habitat grow in soil exactly like that in our desert. Steve Brack of Mesa Garden recommends using no organic matter in the soil for most mesembs. I just dig up fine clay when it's dry and use that for soil. It's like concrete when dry, and it's heavy, but the plants like it.

I struggled with plants such as *Antimima*, *Argyroderma*, *Bergeranthus*, *Cephalophyllum*, *Cheiridopsis*, *Conophytum*, *Gibbaeum*, *Mitrophyllum*, *Monilaria*, and *Odontophorus* for quite a while until I really studied their origins and climate. Although I grew up in Southern California and experienced a Mediterranean climate for years, I never understood that most mesembs need the same thing until reading a few new books the last few years. And, an excellent lecture at the 1999 CSSA Convention covered the climate of South Africa in detail. It was an eye-opener for me, and my mesembs started growing better from that time on.



*Aptenia cordifolia*³

The Mediterranean climate has a long, warm-to-hot summer, (but not as hot as in Phoenix!) beginning roughly in April in the northern hemisphere, with

few clouds and no rain at all. The winters are cooler, beginning roughly in October, with frequent fogs near the coast and long, gentle, cool rains that may last for days. Between rains it is cool with little frost, and there are warmer days interspersed. Some areas never see frost. The Mediterranean winter is very much like ours here in Phoenix, except we can get harder freezes than is usual in California or most of South Africa outside the mountains.

The winter-growing mesembs flourish during these cool wet winters. In fact, most like to be soggy for the entire winter, and the amount of growth they produce is astonishing. As nights warm, the different genera go dormant one by one, until only the opportunistic growers remain. As I write, *Bergeranthus* sp and *Rhombophyllum dolabriforme* have been in bloom since April.

Our summer starts, for the winter-growing mesembs, when night temperatures consistently rise about about 75 degrees. Some genera develop resting foliage (*Cheiridopsis*, *Mitrophyllum*) and some just turn silvery and hunker down for the long summer. While an occasional sprinkling, maybe once a month, will not hurt them so long as they dry out quickly, they will not survive if exposed to normal monsoon rains. So, some form of overhead protection is necessary.



Conophytum ornatum [Scott M plant]

Many can tolerate our temperatures and sun fine, although they come from cooler areas. *Bergeranthus*, *Bijlia*, *Cerochlamys*, *Cheiridopsis*, *Dinteranthus*, *Odontophorus*, and *Schwantesia* all do fine for me in full sun in the summer. They develop beautiful pink to purple tinges to the leaves.

Some I keep outside but not in full sun. *Antimima* is an example.

Others can't use the light since they are sleeping. These I bring into bright shade and store dry all summer. I put them in a bright window that gets no direct sun and forget about them until October. *Argyroderma*, *Cephalophyllum*, *Conophytum*,

Mitrophyllum, *Monilaria*, and *Juttadinteria* fall into this category.



*Schwantesia succumbens*⁴

When nights start cooling in September or October, I move them all to a partially shaded outdoor spot, water once heavily, and wait. If they're ready they will start to grow. If not, I wait until they are dry and the weather is a little cooler and then soak them again.

Once in active growth, I keep most of them moist all winter. I wouldn't let most stand in water—though *Cephalophyllum* would like this, I've read—but I don't let them dry completely. I fertilize weekly with 25 percent strength liquid fertilizer. Many people fertilize more frequently.

When frost threatens I protect them. Otherwise I let them get cold rain, sun, wind, whatever the winter brings. They like this kind of weather!

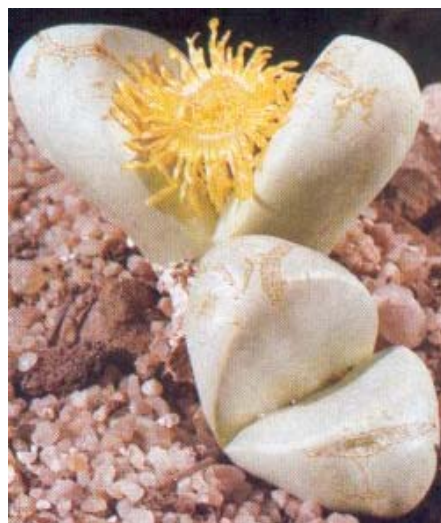
I move them to full sun for the entire winter season. I start moving them into more shade for the summer when nights are over 75 degrees. Then, when it warms up again, they go back to sleep.

By the way, South African bulbs for the most part like this routine too: *Chasmanthe*, *Freesia*, *Gladiolus*, *Haemanthus*, *Ixia*, *Lachenalia*, *Ornithogallum*, *Oxalis*, *Sparaxis*, *Watsonia*. I pull off the dry leaves and stack the pots in a closet for the summer.

Many in our club have had bad experiences buying mesembs from California in the spring or summer. They just can't get used to our summer and die quickly. If I buy them in the fall or winter, though, they grow well all winter and are ready for our summers.

They are also very easy to grow from seed. Just don't let the seedlings dry out. I have had trouble with this in the past since I work long hours; next year I'm actually going to stand seedling pots in water. It is fine to sow them outside here in the winter; just

protect from frost. Use garden soil and deep pots (12-ounce plastic cups work well.) Cover the pots with window screen to prevent rain from dislodging the seedlings and put them outside in mostly sunny areas. Then stand back. From what I've read, many bloom the first year from seed.



*Argyroderma octophyllum*²

They are also easy from cuttings, best taken during cool weather and active growth. Just put a fresh cutting into moist soil and keep moist. They don't need to callus. And, if a plant starts to rot in the summer, save what you can, plant the piece in soil, water once to settle the soil, keep in a shady spot, and don't water until nights cool down. I took a 2-leaf tip cutting from a friend's *Cheiridopsis* last August and treated it like this. It started to grow in December and looks pretty good.

Birds like to peck mesembs, so protect them.

If you've had bad luck with these in the past, try again this fall. They're really not hard once you understand what they like.



*Cephalophyllum spongiosum*⁵

¹From *Illustrated Encyclopedia of Cacti & Other Succulents* by Riba & Subik

²*From Illustrated Encyclopedia of Cacti & Other Succulents*

³*From Succulents II by Sajeve & Costanzo*

⁴*From Succulents I by Sajeve & Costanzo*

⁵*From Succulents II by Sajeve & Costanzo*

BOOK REVIEW

Muriel B

A new acquisition for the CACSS library is *Succulents of South Africa, a Guide to the Regional Diversity* by Ernst van Jaarsveld, Ben-Erik van Wyk and Gideon Smith, Tafelberg Publishers, Cape Town, S. Africa, 2000, 144 pp. Suggested price \$14.95. This book is intended as a guide for motorists wishing to view plants in habitat. It is, however, far more than that. Careful reading will reveal the habitat climate patterns for most of our favorite South African succulents.

South Africa enjoys the reputation of having more species than any other area in the world of comparable size. The plants discussed are the succulents which dot the area in great abundance. South Africa has been divided by the authors into 16 convenient motor car trips. The format follows the one set down in the well-known *Guide to the Aloes of South Africa* authored by Van Wyk and Smith in 1996. This new book covers other succulents and aloes as well. The chapters are written about each area of South Africa and the plants that are found there, complete with inset maps. The text includes discussions of the area and its climate which perhaps helps us to understand why each particular plants grows there.

The photographic illustrations are beautiful and show the plants in habitat. There are also some fine drawings, by Elise Bodley, which carefully illustrate the various plants in great detail. There is a general discussion of the various areas of South Africa with their differing climates and geography that allow so many of these plants to survive and flourish.

This is a must read for those of you who are interested in *Adenia*, *Adromischus*, *Aloes*, *Aloinopsis*, *Anacampseros*, *Argyroderma*, *Bulbine*, *Caprobrotus*, *Ceropegia*, *Conophytum*, *Cotyledon*, *Crassula*, *Delosperma*, *Euphorbia*, *Faucaria*, *Frithia*, *Gasteria*, *Glottiphyllum*, *Haworthia*, *Hoodia*, *Lampranthus*, *Lithops*, *Mesembs*, *Ruschia*, *Sansevaria*, *Senecio*, *Stapelia*, and *Tylecodon*, to name a few. This not a complete listing but shows the diversity which exists in this botanical wonderland.

This book would be a fine one to take along on a visit to South Africa. It can also serve as a less expensive substitute for a full visual experience of the biological diversity and will give a vicarious thrill to all plant lovers. I highly recommend this as pleasure reading for our membership. The book was donated to the library by Leo M.

Note from Leo—I was asked in March to review this book for an upcoming issue of the CSSA Journal. I was struck by how beautiful the book is, how affordable, and how much practical information about growing South African plants is in the book. It is not intended as a horticultural book, but by reading the introduction to each geographic section, one will find the rainfall and temperature patterns for plants from that region. Following this are discussions of many plants from that area.

News from our Librarian

The CACSS wishes to acknowledge a generous donation by Rosemary G to our library in memory of her late husband, Doyt: \$50 for new acquisitions; a hardcover edition of Preston-Mafham's book *Cacti - An Illustrated Dictionary*; and *Cacti & Succulents for Modern Living*; 47 back copies of the *Cactus & Succulent Journal*; and assorted other publications from various C & S Societies. We also thank the Daleys for their donation of \$50 to the library fund in Doyt's memory.

Our President Leo M has donated a copy of *Succulents of South Africa* by van Jaarsveld et al., a new book with many color pictures of and cultural information for the flora of that area.

BUG-OF-THE-MONTH

Ladybugs: Don't Buy Them

Life Cycle: The length of the ladybug life cycle depends upon temperature, humidity, and food supply, usually requiring about three to four weeks. In the spring, overwintering females find food, then lay egg clusters of 10 to 50 eggs in aphid colonies.

They lay from 50 to 300 eggs in a lifetime. Eggs hatch in 3–5 days; the larvae feed on aphids or other insects for 2–3 weeks; then, they pupate. Adults emerge in 7–10 days. There may be 5–6 generations per year. In the autumn, adults hibernate in aggregation sites. These sites can be along fence rows, under fallen trees, or under rocks.

Amount of Food Consumed: Although adults and larvae are primarily known as predators of aphids, they also like soft-scale insects, mealybugs, and spider mites. Some feed on plant and pollen mildews. One larva will eat about 400 aphids during its development. An adult will eat about 300 aphids before it lays eggs or about 3–10 aphids for each egg laid. An adult will consume more than 5,000 aphids in its lifetime.

Collecting Ladybugs for Sale: Ladybugs are collected in the mountains of California. Ladybugs return to the same huge aggregation sites each year. Some sites have been known to contain as many as 500 gallons of the bugs (72,000–80,000 adults per gallon). Bugs collected in December, January, February, and early March, before normal migration, are cold-stored. When released they tend to disperse quickly and widely, especially when temperatures reach 65°F and above. It has been discovered that ladybugs have a genetically-programmed need to fly to new territory before eating; they will not begin eating until they have flown a great distance. As a consequence, few stay in the area where they are liberated. Those released in the summer don't disperse any great distance. They will drink water, but don't eat, existing on their stored fat.

Purchased Ladybugs = Unwise Investment. Shipped-in ladybugs aren't really an economical way to manage aphid infestations.

They will not begin eating until they have flown to your distant neighbor's home. Bugs collected from outside Arizona are of less value as pest-eaters than the local beetle populations, which will multiply in accordance with prey.

However, ladybugs can be beneficial in a greenhouse with tightly screened vents. In that case, one-half pint (about 4,500 ladybugs) per 3,000 square feet is the recommended rate. Release in the evening after watering down the area. Spray *wheat* (a combination of whey and yeast) on plants to attract ladybugs.

Sue H

Note from Leo—A great memory is hiking up Finger Rock Canyon in Tucson on July 13, 1983. At the top of the mountain we were swarmed by ladybugs to the point where no skin was visible. They were after our sweat. They stayed on us as long as we were on the mountain top.

On the way down, after a certain point, they started flying off us; before we had gone 1/4 mile all had left, presumably to return to the peak.

Get Your Newsletter by E-Mail

If you'd like to see the newsletter in color, contact me (Editor Jim D). I can send it in pdf format or Microsoft Word. The latter produces the clearest images for pictures; however, it also makes an enormous file that might take many minutes to download at your computer—depending on your modem speed. PDF also takes several minutes.

CENTRAL ARIZONA CACTUS AND SUCCULENT SOCIETY 2001

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Deadline for insertion in next issue of the *Central Spine*: August 15, 2001. Send insertions to: pantenor@dancris.com

Scott M's Open Garden



Backyard with covered greenhouse

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CALENDAR

July 14	Special Presentation by the Maces
July 29	Wendy Hodgson - Surveying Plants Along the Arizona Trail
August 26	Patrick Quirk - Learning to be a Better Gardener Through Field Observations
September 30	TBA
October 28	Silent Auction
November 18	Woody Minnich
December 9	Holiday Party & Elections

**Meetings are at 2 p.m. in Webster Auditorium,
unless otherwise noted. All meetings include a
question and answer session on growing plants.**



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