



GREATER LAS VEGAS ORCHID SOCIETY

SUNDAY, APRIL 4, 2004 2 PM

THE MEETING WILL BE HELD IN THE USUAL PLACE, THE NEVADA GARDEN CLUB BUILDING AT WASHINGTON AND TWIN LAKES ON THE WESTERN EDGE OF LORENZI PARK

Carol Siegel, Newsletter Editor

CAROL SIEGEL- PRESIDENT
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Clarice Dean- Trip Chairman
John Haydukavitch-Video Chief
Shelly North-Classy Club Apparel Chairlady

April 4, 2004	Ron Parsons, "Oddities and Rarities"
April 9-11, 2004	Easter Show at the Cal
May 1, 2004	Sunset Flower Show at Green Valley Library
May 2, 2004	Norman Fang, Owner of Norman's Orchids "Phalaenopsis"
June 6, 2004	Glen Decker, Owner Piping Rock Orchids, "Phragmipedium"
July 11, 2004	Dr. Joseph Arditti, "The Little Known Uses of Orchids In Medicine, Food, Magic, and As Implements"
August 1, 2004	Barbecue Mt. Charleston Eldine Stevens' house
Sept 12, 2004	Mike Blitz, Exotic Orchids of Maui "What's Happening In the World of Cattleyas"
October 3, 2004	Aaron Hicks, "The Orchid Seed Ban"
November 7, 2004	The Further Exploits of Bill Bergstrom in Mexico

- December 5, 2004 Fifth International Food Fest and Holiday Party
- January 9, 2005 Mike Glikbarg, Orchids of Los Osos, "Odontoglossum and Oncidinae" SECOND SUNDAY
- February 6, 2005 Alan Koch, Gold Country Orchids, "Orchid Growing For Dummies" (author of the book!)
- March 6, 2005 Jerry Fischer, owner Orchids Limited, "The Orchids Of Borneo"
- April 3, 2005 Charles Rowden, "Orchid Photography"
- May 1, 2005 Dr. Joseph Arditti, subject to be announced
- June 5, 2005 Sue Fordyce, owner Fordyce Orchids "Sophronitis and Her Sisters"/"Orchid Sign Language"
- July 10, 2005 SECOND SUNDAY Sheldon Takahashi, owner Carmela's Orchids, "Cattleyas"
- August 7, 2005 Barbecue
- September 11, 2005 Virtual Greenhouse Tour
- November 6, 2005 The Adventures of Dennis D'Allesandro in Bolivia
- December 4, 2005 Sixth Annual International Food Fest and Holiday Party

It was our good fortune to have had Ron Coleman as our delightful speaker in March. We genuinely enjoyed this survey of the native orchids of the United States from the BIG expert in the field. Ron had very kind words to say about our own display on the native orchids of Nevada on our new poster board. By the way, the display was very popular at the Spring Bulb Show, which we participated in. I donated both of Ron's books on native orchids to the library—and he autographed them, too. Check them out! Clarice Dean kindly presented our Species of the Month, *Oncidium isthmii*, and gave out culture sheets she made up. Great lady, that Clarice ... We thank Dan Vong for the gorgeous orchids for sale and for all the supplies and goodies in the raffle. Dan Mumau and Mike Lawless were nice enough to bring cartons of hotel plants to the meeting, and Tony Billitere got Plant World to donate three boxes of potting bark. Dan Hawley greeted us with all the warmth and charm for which he is loved. Shelly North, Jeannie Salles, Terry Wilsey and Steve Ninemire spoiled us with a delicious St. Patty's day feast, and our gurus Tex and Mike educated us on our show and tell plants. Mike sold some of his great orchids, too while we made money on clipper and fertilizer sales. If you didn't get some of Norman's fertilizer, make sure to get some at the next meeting. We will have it just this once in time to jumpstart your orchids in the spring.

We hope Alex and Eileen had a great time on their trip to Spain. We were so happy to see Scotty Nogaim and Connie Yap again at the meeting, looking all well and beautiful after their recent illnesses. It was lovely to see Liz Leone and John Haydukavitch's little bruiser Anthony at the meeting. I, personally, fell in love with their handsome little foster child and hope they get the chance to adopt him as they would like. Say a prayer. We send love and get well wishes to Phyllis Bond after her surgery and to Jean Gordon after her recent hospitalization. Hey, gals, we miss you!!

As you remember, Charles Rowden just cancelled his April talk due to cancer therapy. I have rescheduled him for 2005. After some really significant groveling and begging, I got us a great speaker for our meeting on April 4th. Ron Parsons, considered by many to be one of the San Francisco Area's best orchid photographers, is a national and international speaker of great renown. He has over 25,000 orchid slides and speaks on dozens of orchid topics. He has been published in books, magazines, newspapers and brochures. He will entertain and enlighten us with a talk on rare and unusual orchid species, "Oddities and Rarities", which should be great fun. To coordinate with Ron's talk, I have written a little article at the end of the newsletter on "Freaks and Stinkers", some of the orchids I think are really bizarre. Hope you enjoy!

We thank Anne Murphy, Clarice Dean, and Jane Green in advance for providing snacks. Dan Vong will sell plants and provide the raffle. Bring your plants for show and tell and make us proud. Don't forget we have an outstanding FREE library with books, magazines, and tapes, run by Steve Ninemire. Steve Ninemire took all our books (there are hundreds!!) home with him after the meeting and catalogued them all to make it easier to select. We really appreciate you, Steve. Shelly North will once again be taking orders for club apparel, T-shirts and tote bags and hats, so be sure to get yours!

Our club has responded to the call from the American Orchid Society which is having severe financial difficulty and made a donation of \$100. Our name will be mentioned in the magazine. I will have an article published on "Orchid Addiction" on the back cover of ORCHID DIGEST in June. The article first appeared in our newsletter.

On March 20, Leslie Doyle graciously opened her home to us for the Annual Spring Plant Sale. We thank Carol Siegel, Diana Smith, Jeannie Salles, Becky Biondi, Gail

Harris, Steve Ninemire, Zaida Cadenas, Marsha Hawley, Clarice Dean and, of course, Leslie for making the sale a success. It was great fun hanging out with all these great people, sharing sweat, laughs, and pizza and getting to know each other.

We thank Terry Wilsey and Leslie Doyle for representing us at the Nevada Garden Club Spring Meeting. We presented our club activities and made everyone very jealous, I am sure.

On April 9th to 11th, we will be helping with the orchid show, Easter Show at the Cal, put on by our sister society, the Torrance Cymbidium Society. Shelly North and Phyllis Bond will once again do an award-winning display and we will also have a new display on the native orchids of Nevada. I have gotten AOS judging for the show, so you can win an AOS award. Shelly North is painting a magnificent and impressive backdrop with orchids on it for the show. We need you to bring down plants for the show on Thursday after 3pm to the California Hotel or call me 254-4168.

On April 24th, from 9:30 to 3:30, Tony Billitere will be hosting a Day with the Experts at Plant World. Tony, Marsha Hawley, Lillian Patterson, and Steve Ninemire will be our good will ambassadors and get the word out about our club and its fine programs. In case you didn't know, we get 10% off there just for being plant members.

On May 1st, we will be putting in a display at the Green Valley Library as part of the Sunset Flower Show- May Memories- and I will be doing my "sex" talk in the library. We are hoping that we will attract new members from the east side of town who have not heard of us. We will need your blooming plants for the display! Dennis Dean will be chairing the display, and we are sure he will do a great job, again.

We are also planning to go with Dr. Pat Leary to look at *Epipactis gigantea* in May in Red Rock and to look at *Platanthera sparsiflora* when it blooms in Mt Charleston. We also hope to look at *Spiranthes infernalis* in Ash Meadows when it blooms in June. We will collect some of the *S. infernalis* for a study from the AOS on *Spiranthes* phylogeny with a permit so we will have lots of fun doing this!! These are all EXTRA activities, and we will still have all our regular meetings.

Stay safe, keep well, and may you bloom!! Love, Carolgrowlove@cox.net 254-4168

FREAKS AND STINKERS

By Carol Siegel

When most people think of orchids, they think of Miss America, gorgeous creatures with sensuous lips, perfect form, and a luscious smell. In reality, many orchids are more like teen-age boys with blue hair, metal in their mouths, ugly tattoos, and a rather disagreeable smell. This is the freak show side of orchids, the weird and wacky, the deformed, the midgets, the giants, and the stinkers. Come with us explore this bizarre world of unbelievable orchids.

WHAT A STINKER!

A fabulously gorgeous orchid, *Bulbophyllum fletcherianum* has the foulest odor of any orchid. One of the largest of the *Bulbophyllum*, *B. fletcherianum* has leaves that can be one foot across and seven feet long, taller than a man! Found at elevations from 750 to 2400 feet in New Guinea, it has large dark green to reddish oblong pseudobulbs streaked with purple carrying a single, pendant, oblong green-edged purple leaf which is green on the upper side and purple on the bottom. This is a gorgeous plant that you can buy on the web. Be warned, however. Under that spectacular leaf blooms in the mid-summer and fall a stout, erect inflorescence carrying 20 to 30 clustered flowers, each of which looks like a toucan's bill and smells like a hideous, dead herd of elephants. This devastating foul smell of rotting flesh makes it impossible to enter the greenhouse. Most *bulbophyllum* are pollinated by flies, which love the smell of urine, blood, dung and rotting meat. If you insist on growing it, leave it outside when it is in bloom, What a stink!

WET DOGS AND UNWASHED FEET

75 percent of orchids are fragrant, although human noses can smell very few of them. Bees, however, can smell any orchid from four miles away!! To entice a pollinator, orchids have often developed weird smells that cater to the kinky tastes of insects.

Galeandra greenwoodiana smells like a wet dog while *Bulbophyllum phalaenopsis* smells like a garbage can in summer. *Brassavola nodosa* perfumes the night air with a smell like a lemon dessert with gardenia undertones. *Clowesia rosea* smells like cinnamon, while *Catasetum fimbriatum* smells like coal tar and honey. *Cycnoches chlorochilon* has a daytime scent of pineapple and guava while *Cymbidium ensifolium*

has a penetrating citrus smell. *Neofinetia falcata* smells like vanilla candy, while, oddly, *Vanilla flavorans* has no vanilla smell until after its fruits (pods) are dried. One orchid, *Pleurothallis cocornaensis* smells like unwashed socks. Many a collector has washed his feet several times thinking it was he and not the orchids!! There must be a pollinator out there who fancies the smell of dirty feet.

BEHOLD THE GIANTS AND THE FATTIES!

Weighing more than half a ton and growing to forty feet across, *Grammatophyllum speciosum* surely wins the vote for most massive orchid. More than 100 flowers can be borne on flower spikes five- to eight-feet tall!! Men harvesting the orchid have been killed when the orchid fell on them. Orchids of species of *Grammatophyllum* from Southeast Asia and the Pacific islands tie with their remarkable lookalike from Ecuador, *Cyrtopodium longibulbosum* for sheer mass. Both these species produce enormous clumps of huge pseudobulbs. *Cyrtopodium* bears pseudobulbs up to 11 $\frac{1}{2}$ feet tall while *Grammatophyllum* pseudobulbs can reach 16 feet long. *Grammatophyllum* are very massive, but they are not tall.

Before the discovery of *Sobralia altissima*, the title "tallest orchid" went to a rare Panamanian slipper orchid, *Selenipedium chica*. The stems have been recorded to be 16 $\frac{1}{2}$ feet tall. It lost its title when the giant *Sobralia altissima* was discovered. It can be 41 feet tall, more than 2 $\frac{1}{2}$ times as tall!! That's as tall as a four-story building!

MIDGETS AND DWARFS

Orchid hobbyists who have been bitten by the bug never have enough room. The answer to the question, "How big should my growing area be", is always wrong. We buy orchids until our growing area is too small. However, there are some orchids so teeny that you can never run out of space. These are the orchids you need a magnifying glass to truly appreciate, the midgets and dwarfs of the orchid world.

A bouquet of *Platystele ornata* or the pseudobulb of *Bulbophyllum globuliforme* could fit on the head of a pin. A bouquet of *Lepanthes* flowers could fit inside a wedding ring. Tiny blooms of *Pleurothallis tridentata* rest shyly nestled in the top of their leaves, visible only with a hand lens. The entire plant of *Pleurothallis grobyi* grows only six inches tall, while the blooms of *Trisetella hoejerei* resemble tiny flying origami birds. The one-inch-tall foliage is dwarfed by two-inch-wide flowers.

Pleurothallis schiedei (syn. *P. ornata*) is a fabulously detailed miniature with flowers only $\frac{1}{4}$ inch wide. White streamers just .1 cm (1/25 of an inch) dangle from the edges of this Mexican species like tiny fringe on a lamp shade. Any change in humidity or temperature makes these streamers wriggle. Passing flies are enticed to lay their eggs in the flower, mistaking the wriggling streamers for maggots and the black dots for baby flies. It is part of the subtribe *Pleurothallidinae*, which comprise fully 10% of all orchid species. It is here that you find many of the wee little orchids

AN ORCHID WITH ANTS IN ITS PANTS

The foot-long pseudobulbs of *Schomburgkia tibicinis* are so big they have been used as musical instruments. Ants take up residence through an opening in the base of the big pseudobulb, moving in a whole nest to live inside the orchid. Ants serve as bodyguards against the attack of herbivores, which would eat the orchid blossoms and plants. They act as bodyguards for the *Schomburgkia* in return for sugars made especially for the ants. There is the story of how orchid adventurer George Ute Skinner was attacked by stinging ants when he tried to gather this orchid in the wild; he had to run away without his prize!

In Zimbabwe, large black ants patrol *Aerangis verdickii*, and in those populations there is little herbivore damage. The ants there do not live in the plant, but the flowers make lots of nectar that the ants rob during periods of drought.

Coryanthes speciosa actually grows in ant hills, utilizing the ants' dropping and nest debris for nutrients and providing sugars in return for herbivore patrol.

WHAT YOU SEE IS NOT WHAT YOU GET

Some orchids pretend to be what they are not, stopping at nothing in order to get pollinated. They lie. They cheat. They promise and then don't deliver. They fake rewards and give absolutely nothing. One third of all orchids pretend to be or have something they are not—the big lie—in order to get pollinated.

In order to attract fruit flies, *Pleurothallis endotrachys* looks and smells like rotten fruit. In order to attract bees, *Arethusa bulbosa* paints patches of pollen on itself—although it has no real pollen. In order to fool fungus gnats, *Dracula vampira*'s lip looks like a mushroom and emits mushroom smell. In order to make carrion flies visit to lay their eggs, *Bulbophyllum giganteum* looks and smells like rotten liver.

The most bizarre orchids are those in the genus *Ophrys*. *Ophrys* means "eyebrow", and this hairy orchid bears an almost uncanny resemblance to female bees and wasps. They even emit a fragrance identical to that produced in the Dufour's gland of female bees in need of a little male companionship. In the spring, male solitary bees come out of the ground looking to mate. There are fewer females and they only mate once in their lives. Some males are really inexperienced and are easily fooled by the *Ophrys* orchids. The male bees mount the flowers and attempt to copulate with the flowers. In the process, they pick up pollinia, and frustrated, because the flowers don't quite do the trick for the bee, they fly off to another flower and fall for the same trick again. It's called pseudocopulation, but it is only false for the bee. It is real for the orchid. The bee doesn't score, but the orchid does! Many other look just like insects including *Caladenia*, *Trichoceros*, and *Drachea*.

LOOK, MA! NO LEAVES..

Most of the time, the sight of an orchid without any leaves causes weeping and wailing and lots of guilt. However, there are orchids that have no leaves. The entire process of photosynthesis takes place in their specially adapted green roots. They are truly leafless because they live their whole lives without leaves. Their vestigial leaves are now just small scale-like structures.

There are three interesting leafless orchids from South Florida, all related to African angraecoid species. The evolution to a leafless state is fascinating. All three have leaves or leaflike structure when seedlings, but once the proper mycorrhizal fungus association is achieved and the plant is established, the seedling leaf drops off, and the plant is leafless for the rest of its life. As an adult, the plant is just a group of roots growing from a short central stem, "like the spokes radiating from the hub of an old-fashioned wagon wheel." (Chuck McCartney, "African Affinities", *Orchids*, March 2000, p. 247).

The roots of two of the species, *Polyradicion lindenii* and *Harrisella porrecta* probably have chlorophyll because they are a gray-green color with green tips. The roots of the third species, *Campylocentrum pachyrrhizum*, has roots with bronze-colored growing tips. It seems clear that these species don't have enough chlorophyll to provide all their needs and rely on fungus for their whole life to eat.

The most famous of the leafless orchids is *Polyradicion lindenii*, the ghost orchid, made legendary as the subject of the book *Orchid Thief* and the movie *Adaptation*. The theft of this protected ghost orchid from the dark depths of the murky swamps of the Fakahatchee Strand makes for exciting reading. The spider web of thick, gray-green roots with green growing tips radiates out from a central hub on the trunks of cypress, pond apple, royal palms, and popash trees. "Polyradicion" means "many roots". The nearly-unnoticeable roots suddenly throw a stunningly-erie 6-inch white flower with what looks like two frog's legs hanging down and an eight-inch nectary tempting pollinators. When in bloom, it really looks like an African angraecum. Glowing white and night-fragrant, it is thought to be pollinated by a moth, although butterflies have been found with the orchid's pollinia.

Another leafless orchid genera is *Coralorrhiza* like *Coralorrhiza maculata*. Leafless, flowers heavily-spotted, devoid of green, this odd orchid gets its nourishment solely by being parasitic on its fungus hosts. This is one of those orchids that doesn't look like most people's idea of an orchid. Known as the "spotted coral root", its fungus-infected roots have a knobby appearance like pieces of branched coral, and its three-lobed white lip, and often its sepals, petals and column, are dotted with reddish to purplish spots. It mooches off other living things its whole life. It is known as "mycotrophic plant" because it relies on a special relationship with mycorrhizal fungus for its food. All orchids start their lives dependent on fungus for food because orchid seeds have no endosperm or food tissue for their growing embryos. The little seed must land on the fungus that serves as its nanny providing food. As most orchids grow, they develop leaves and become self-supporting. *Corallorhiza maculata*, however, is like a teen-ager who never leaves home. It continues to feed off its fungus for food throughout its whole life. Without photosynthesis, it has no need for leaves or chlorophyll, and the leaves are reduced to tiny sheaths on the flower stem. The plants are devoid of green and exhibit, instead, gay and attractive shades of brown, red and yellow. The strangely-shaped plants are just rhizome, stem and flowers, and appear above the ground to bloom.

TOTALLY IN THE DARK

Some orchids live their whole lives underground. *Rhizanthella gardneri*, the Underground Orchid, of Western Australia, spends its whole life under ground and is thought to be pollinated by a termite. In 1928, Farmer John Trott of Corrigin,

unearthed the first specimens of the orchid when ploughing land that had been burnt. He took the specimen to Charles Gardner, the Government Botanist, who forward it to Dr. Sanders Rodgers who named the species in Gardner's honor.

It grows in association with *Melaleuca uncinata*, that sheds its leaves to produce thick layers of leaf mold under which the orchid grows, The head of tiny, crowded orchids are exposed when the floral bracts expand and occasionally push through the leaf mold, allowing a little light and perhaps another pollinator to enter. The "capitulum" or head looks like one large flower but is really a whole group of small flowers, a "bouquet".

THE FASTEST MOVERS

Nature films are not often made about plants because they move so slowly. Before the plant moves, the audience has gone to sleep. *Condylago rodrigoii*, from NW Columbia, has a fuzzy flower just $\frac{1}{2}$ inch long that has a lip that can snap shut in an instant. As Eric Christensen says, "Unlike the intriguing Venus fly trap, the object of the orchid trap is pollination, not lunch". *Condylago* is one of three genera in the subtribe *Pleurothallidinae* which does this snappy trap, the others being *Porroglossum* and *Acostaea*. The lips of *Porroglossum* are mobile and flip up in an instant to trap a pollinating insect against the column. The lip is uppermost in the flower, and stands almost erect when in a receptive state. The lip is triggered by a light touch at its base, and the lip quickly snaps shut in less than a second to enclose the column and petals. This response is the result of the complex structure of the lip and column foot and the sudden loss of turgor in an outer layer of cells at the lip's base. The lip resets in 15 to 30 minutes. It also closes during rain and at night. As Luer says, "Dawn sees the lip open again." This jailer can really move!

From stinkers to fatties, from giants to midgets, from liars to trappers, orchids are surely a strange and wonderful family of flowers.

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