

July/August 2010

ISSN 0096-8684

The Begonian

Publication of the American Begonia Society

American Begonia Society Founded January 1932 by Herbert P. Dyckman

Aims and Purposes

To stimulate and promote interest in begonias and other shade-loving plants.

To encourage the introduction and development of new types of these plants.

To standardize the nomenclature of begonias.

To gather and publish information in regard to kinds, propagation, and culture of begonias and companion plants.

To issue a bulletin that will be mailed to all members of the society.

To bring into friendly contact all who love and grow begonias.

The Begonian is published bimonthly by the American Begonia Society, Inc. Views expressed are not necessarily those of the society, its officers, or the editor. Contents, except where labeled otherwise, may be reprinted without limitation, provided credit is given to "The Begonian, magazine of the American Begonia Society."

American Begonia Society P.O. Box 471651 San Francisco CA 94147-1651

Membership (subscription) \$25, US, Mexico, and Canada. \$45, Overseas airmail except Mexico and Canada. Added member, same household, no charge. Consult Membership Chairman for sustaining, benefactor, and life membership dues. U.S. currency only. Back issues (current volume) \$2,50.

Membership - Send inquiries about address changes, missing copies, dues, subscription, back issues and circulation to Membership Chair, Paul Rothstein, 33 Kintyre Lane, Bella Vista, AR 72715. 479-855-1665 paroan2001@yahoo.com. Paypal accepted. Editor, Art Direction and Design: Linda Tamblyn, 5635 Woodward, Merriam, KS 66202, 913-231-1020. begoniaskc@yahoo.com

Consulting Editor: Jan Brown, begoniabrown@yahoo.com

Nomenclature Editor: Kingsley Langenberg, 3293 Country Lane, Waukegan, IL 847-336-9104 kingsley.langenberg@gmail.com

Quick Tips: Dianna Wilkerson, 15356 Pheasant Run, Choctaw, OK 73020 b2writer@cox.net

Editorial and Identification Assistance: Charles Jaros, Tom Keepin, Jem Wiseman

Advertising Staff: Display Ads: Linda Tamblyn, 5635 Woodward, Merriam, KS 66202, 913-231-1020, begoniaskc@yahoo.com

Plant Society Ads; Holiday Greetings: Wanda Macnair, 59 Walker St., Cambridge, MA, 02138, 617-876-1356, wmacnair@msn.com

B. sizemoreae, once known as B. U388, is a Vietnamese species that likes low temperatures and high light. Photo & culture notes by Charles Henthorne



Silver zoned B. palmata pg. 138



B. 'Fashion Statement' pg. 146

On The Cover

Begonia letouzeyi Sosef

Genus: Begonia and section: Loasibegonia Native to West-Central Tropical Africa, including Cameroon, Gabon, and Zaire, *Begonia letouzeyi* Sosef was discovered in 1972 by R. Letouzey at Pres Esseng, 12 km NNE de Ngambe, in Cameroon. The identification was verified by M.S.M. Sosef, in 1993.

B. letouzeyi, is a most prolific bloomer. Our

In This Issue

- 129 Begonia tenera Dryander: A new report for India
- 131 Guidelines for Making Superior Images
- 136 A Word With You: Ovate vs. Elliptical
- 138 "What's in a name?" B. palmata D. Don [Platucentrum]
- 144 Begonia opuliflora Putz. Section Ruizopavonia?
- 146 Superba Canes
- 150 Begonia venosa Skan ex J. D. Hooker
- 152 Growing Underground

Regular Features

- 124 President's Message
- 125 2010 National Convention
- 126 ABS Awards Call For Nominations
- 128 In Memoriam: Ramona Parker
- 128 Letter To The Editor
- 135 Canes At Cascade
- 143 In The Mailbox
- 143 "Begonias Of So. California"
- 149 Clayton M. Kelly Seed Fund
- 154 American Begonia Society Book Store
- 156 ABS 2010 Convention Seminars
- 158 "Begonia Heaven In 2011"

plant grew quickly from a leaf into a mature blooming plant in only 5-6 months. The plant is rhizomatous, and its leaves are under 3 inches. Male blooms are more prolific and open first with the female blooms opening at a later time. Blooms appear to open at approximately the same time with a short resting period before new blooms appear. The unopened blooms are a more vivid deep yellow with a distinct orange tint. The plant is compact and still has not grown over 4 inches tall. It is one of our favorites - if not the favorite - yellow blooming begonias that we grow. Photo and information by Charles Henthorne

Back cover: Begonia opuliflora from Flore des serres et des jardins de l'Europe by Charles Lemaire and others. Gent, Louis van Houtte, 1855, volume 10 (plate 995). Chromolithograph finished by hand. The founder, publisher and part-editor of this lavish Belgian periodical was Louis van Houtte, the propietor of the largest nursery of its time on the continent. The work is notable for the craftsmanship of the Belgian lithographers Severeyns, Stroobant and De Pannemaker, who had mastered the art of color-printing from stone.

Begonia opuliflora is Jan Brown's Save Our Species plant. See article page 144.



The 2010 Southwest Region Begonia Gathering was held at the 109 acre Fort Worth Botanic Garden (entrance pictured above). Among visitor highlights are the Begonia Species Bank and many sculptures tucked away among endless dazzling displays of plant material and colorful blooms. What a fitting place for a Begonia Gathering! Photo by Tom Anderson

President's Message

The Get Together of the Southwest Region was just what the Southwest Region is all about: good people sharing wonderful experiences and lots of begonias!

I want to thank the members of the Mae Blanton and Dallas Area Branches and the Southwest Region for a grand Get Together and a spectacular plant sale.

It was the dream of some of these very dedicated and hard-working members to celebrate the 75th anniversary of the Fort Worth Botanic Gardens and show off the new begonia facilities.

The begonia species collection, as well as a large assortment of cultivars, has been housed at the Fort Worth Botanic Gardens

> Next Begonian DEADLINE July 28

for a long time. I have had the opportunity to have had contact with the curators for many years. I have seen everything from wonderful triumphs to sad situations due to a multitude of influences. I have been told about all the changes that have been taking place over the last year or so but I was not prepared for the actual thing.

The new facilities are breathtaking! Everything to do with the collection is so impressive and done with such obvious love. Thank you Debbie Garrett, curator, and all your wonderful and dedicated volunteers. You have created a begonia lovers paradise.

Everyone who cares about begonias needs to learn more about what goes on at Ft. Worth and find ways to support this important conservation. (There will be more information in later Begonians.)

Hope everyone has their hotel reservations for the ABS Convention 2010.

See you in San Francisco!

-Cheryl

THE BEGONIAN

Please Help the ABS Raise Funds at the 2010 National Convention

We need your help in two areas. Whether or not you can attend, you can make a huge donation to the society. Thank you!

First, we need items for the silent auction. We are looking for items of value that are either begonia-related and/or beautiful and of interest. If you have attended past conventions, you know that our members have contributed valuable begonia books, plates, prints, and ceramics as well as lovely quilts, art, jewelry, etc. If you are attending the convention, please bring the items with you. If you can't attend, please send items to: *Second*, we need your hand-made items for the boutique. All you creative and crafty members please plan to bring your creations to sell on consignment in the convention boutique shop. These items do not have to be begonia related. Examples from the past include note cards, pottery, jewelry, aprons, tote bags, magnets, etc. For more info, contact Joan Coulat (info above).

Many thanks for any help you can give to support our wonderful Society and the ABS 2010 National Convention in August! Hope we see you there!

Joan Coulat 4111 De Paul Court Sacramento, CA 95821-3212 Phone (916) 283-5960

August 17 - 22 San Francisco, CA 2010 ABS Convention

Begonia chlorosticta Photo by Jem Wiseman

Tours start on Tuesday the 17th at the Hakone Japanese Tea Garden, which was created in 1917, then on to all the other great adventures we have planned. The 2010 lineup of speakers, tours and events promises to be one of our best.

Check out the Speaker Lineup & more details on page 156. The convention will be held at the Embassy Suites in San Francisco. Cost is \$109.00 a night single or double occupancy. As is usual with Embassy Suites there is a free full breakfast and cocktail hour. There is also free parking. To make a reservation call 650-589-3400 or www.embassysuites.com or 1-800-embassy and tell them you are with the American Begonia Society.

Get all the information and a downloadable registration form at: www.begonias.org/events/events.htm or contact Carol Notaras at 415-931-4912

2010 ABS AWARDS CALL FOR NOMINATIONS

They are the American Begonia Society's "Magnificent Seven". You have an opportunity to make seven nominations for 2009. Note that the Ziesenhenne Award criterion has changed from its original form.

We will be joining together in 2010 in San Francisco, CA and will present the most prestigious and honored awards that the society hands out to its members. All of these awards recognize the outstanding service and achievements that have been done for the national organization by its members. You, the membership, are responsible for making the nominations. Please take the time now to write up your nomination. The nomination must contain the name of the award, the recipient's name and reasons that make them or the plant eligible for the award.

There are many worthy members that are possible winners for these awards. If you have nominated someone in the past and they have not won, please nominate them again. Note the new criteria for the Rudolf Ziesenhenne Award. The committee may present only one of each of the awards each year.

I must receive these nominations by **July 15, 2010**. Remember the Board has approved e-mail nominations; however, by mail or e-mail, **one nomination per page**! Please mail all nominations to:

Ann Salisbury, Awards Chairman P. O. Box 452 Tonkawa, OK. 74653 Email: geneann@sbcglobal.net

AWARD CRITERIA:

The Herbert P. Dyckman for Service is presented to a member who has rendered long-term or very outstanding service for the American Begonia Society above and beyond the normal duties of a member or officer. by Ann Salisbury, Awards Chairman

The Eva Kenworthy Gray Award is given for contributing original material toward helping the rank and file members further their study of begonias.

The Alfred D. Robinson Medal of Honor is for a begonia cultivar that has been released for at least five years and no more than fifteen. This hybrid must be registered with the Nomenclature Department and widely distributed, and the originator of the begonia must be a member of the American Begonia Society.

The **Rudolf Ziesenhenne Award** is presented to an Editor who collects and edits the works of others for a publication either U.S. or international and: a. Who encourages a broad array of writers both scientific and practical to write and contribute articles. *B*. Who issues a publication on begonias that is both excellent in design and content and which contributes to our knowledge and appreciation of begonias.

The **Tim O'Reilly Award** is given to a spouse who contributes so much to our society and does not grow begonias.

The **Marge Lee Award** is given to a person who contributes something of a spiritual value toward cementing goodwill and harmony among members.

The Gene Salisbury Award is given to a grower who exemplifies the very best in cultural practice, but who also brings to us, by their careful work, the new species and hybrids. These are growers who contribute to our society simply through their excellence in growing begonias.

These awards may be received only once. The Alfred D. Robinson Medal is presented to a cultivar and may be won more than once by a hybridizer.

Recent past recipients of these awards: see next page

YEAR	DYCKMAN	GRAY	ADR MEDAL	O'REILLY	ZIESENHENNE	SALISBURY	MARGE LEE
2000	M. Sakamoto	F. Holley	B. 'M.Sakamoto'				
2001	R&W Macnair	B. Thompson	B. 'Little Miss Mummy'		Ed and Phyllis Bates		
2002	R&L Fuentes	H. Jaros	<i>B.</i> 'Flamingo Queen'		Tamsin Boardman		
2003	J. Brown	C. Lenert	B. 'Cowardly Lion'		Freda Holley		
2004	M. Zinman	C. Jaros	<i>B.</i> 'Black Gold'		Karen Bartholomew & Chuck Anderson		
2005	Michael Kartuz	Don Miller	B. 'Holley Moon'	Tim O'Reilly	Brad Thompson	Gene Salisbury	Tom Keepin
2006	Johanna Zinn	Rekha Morris		Charlie Lenert		Charles Jaros	Cheryl Lenert
2007	Howard Berg	Morris Mueller	B. 'River Nile'	R.L. Holley	Tom Keepin	Bob Golden	Carol Notaras
2008	Mary Bucholtz	Bill Claybaugh		Richard Macnair	Paul Tsamtsis	Doug & Joyce Pridgen	Donna Marsheck
2009	Tom Keepin	Peter Sharp	B. 'Shaun Henthorne'	Louis Welch	Julie Vanderwilt	Don Miller	Mary Sakamoto



Unknown Sumatran species Photo by Charles Henthorne

In Memoriam: Ramona Parker

By Jan Brown, Los Angeles, CA

Ramona Parker died March 6, 2010 after a very long and varied illness that had kept her out of circulation for several years. She was a long time member of the American Begonia Society, South Bay Branch, Westchester Branch, Orange County Branch, Palos Verdes Branch and the Southwest Region. In all these organizations she served as an officer, usually National Director, and was a tremendous help to me doing publicity for our Westchester Shows and the National Convention we hosted in 1999.

Ramona's profession was editing and writing so she was a stickler for, not just good, but perfect grammar and syntax. Her daughter, Denise Anderson, says that she and her twin sister, Diane, dreaded showing their school papers to their mother in fear of the red pencil. Ramona helped me when I started doing the newsletter and I can attest to her editing skills. She was merciless!

Ramona's maiden name, Carrillo, is a famous and storied one in California. Her uncle, Leo Carrillo, was a movie star and an early ecologist. He served on the California State Parks commission and helped to get Hearst Castle in San Simeon in the state parks system. Carrillo ancestors were governors of California, police chiefs and mayors of Los Angeles.



Ramona loved plants and, in particular, gardenias and camellias as well as begonias - though a special favorite was the avocado tree she planted from a seed. Her home was surrounded with her collections and she could always come up with an unusual plant to awe us at show & tell.

Despite her many health problems she kept going at her many projects. Ramona stayed in her own home until the end and only had help in the last few weeks. Hers was a great spirit and we all remember her kindness and generosity. Ramona and I attended many conventions and board meetings together. Besides all her other attributes she was fun to be with, always interesting and a good friend to the end. She was devoted to the American Begonia Society and its Aims & Purposes. We will dedicate our Westchester Show this year to her memory and miss her forever.

Letter to the Editor

Here is another source for 3 ring binders for The Begonian magazine: Universal Business Supply in Earth City, MO, phone 314-298-0153. Ask for Donna. The binders are \$5.80 each. These are Sparco brand, # 64120 in black color. This company will also ship.

These things are hard to find. In one of the past issues someone listed Wilson-Jones as a source and now they tell me they don't make them anymore.

-Bob Rawlings,

Begonia tenera Dryander: A new report for India

Shaju,T., P.K.Shaji, M.P. Geethakumary & E.S. Santhosh Kumar Tropical Botanic Garden and Research Institute, Palode Thiruvananthapuram-695562, Kerala, India

Abstract

Begonia tenera Dryander, a Sri Lankan endemic Begoniaceae reported for the first time for India in the Kollam district of Kerala, the southern Western Ghats. This species is a member of section *Reichenheimia* III of Begonia, characterized by perennial acaulescent habit, ovate-rotundate leaves, male flowers with 4 tepals, female with 5 tepals and undivided placenta. Description and illustration of the species are provided.

Introduction

The genus *Begonia* L. has about 900 species distributed in tropical and warm regions, particularly in New World (Mabberley, 1997). In India, the genus is represented by 45 species (Santapau & Henry, 1972), of which 11 are represented in Kerala (Nayar & al., 2006).

During a floristic exploration of the Anakuthy forests in the Achankovil range of the Kollam district of Kerala, the senior authors collected a pretty species of Begonia. On critical studies, it was identified as *B. tenera* Dryander, a species to date thought to be endemic to Sri Lanka. It is reported as a new distributional record for India. A detailed description, along with relevant taxonomic details and illustration, is provided here for its easy identification.

Begonia tenera Dryander, Trans. Linn. Soc. London 1:169, t.16. 1791; Hook.f. Fl.Brit.Ind. 2:652. 1879; Trimen, HandB. Fl. Ceylon 2:263. 1894; Karegeannes, Begonian 38:232. 1971; Jayasuriya in Dassanayake and Fosberg, Rev. HandB. Fl. Ceylon 4:139. 1983; Smith & al., Smith. ContriB. Bot. 60: 240. 1986.

Type: Ceylon. Koenig (n.v.)

Perennial acaulescent herb with short tuberous prostrate rhizome. Petiole arising

from the tip of rhizome, to 22 cm long, succulent, cylindrical, bright pink, whitevillous; stipules 1-1.5cm long, ovate- acuminate to cuspidate, sparsely hairy, margin entire or fringed, slightly oblique at base, brown when old. Leaves ovate to rotundate, 6-10 x 5-10 cm, strongly cordate and equal or oblique at base, rounded or subacute at apex, palmately 6-7 veined; crenate-serrate at margin, pale green, more or less hirsute above when young, later becomes glabrescent; brownish beneath, sparsely pilose along the veins. Inflorescence racemoseumbellate, up to 5 flowered, scapose; scapes arising from the axils of leaves, 7-20 cm long, erect, white villous, shorter than or slightly exceeding the leaves; bracts ovate, acute, glabrous or pubescent. Staminate pedicel 1-3 cm long, slender, erect, glabrous; tepals 2 + 2, white with pinkish periphery, outer pair rotundate to ovate, to 8-9 mm wide, minutely pubescent on outer surface, inner pair ovate-oblong to elliptic, to 9 x 3 mm. Stamens 30-50; filaments connate at base, anthers clavate; connective rounded at apex. Pistillate pedicels 4-7mm long, stout, reflexed, pubescent at base, subtended by a lanceolate, glabrous bract, entire or toothed at the base of margin, tepals 5, outer pair rotundate or broadly ovate, white with pinkish tinge on periphery, inner smaller, 4.5 x 5mm. Ovary pilose, with a medial longitudinal septal line on each side, 8 x 10 mm including wings, wings equal; placenta simple, undivided; styles 3, free almost to the base, each with 2 inrolled, distally capitate, spiral arms. Capsule 8 x 10mm including wings, thick, glabrous, dehiscing full length along inner margin of wings; wings equal, to 5mm broad, distally obtuse. Young seeds ovoid.



Begonia tenera

Flowering and Fruiting:July-November Distribution: South India (Kerala) and Sri Lanka

Ecology: Begonia tenera grows as a lithophyte in the evergreen forest, especially along dripping rocks at altitudes 600-800 m. They are mainly associated with Argostemma courtallense Arn., Begonia dipetala Graham. var hydrophila (C.B. Clarke) Santhosh & Seema, Rhynchoglossum notonianum (Wallich) B.L.Burtt., Selaginella spp. etc.

Specimen examined: India, **Kerala**, Kollam district, Anakuthy, 8.8.2009. P.K.Shaji and T.Shaju 62709 (TBGT).

Note: Begonia tenera was described by Dryander in 1791 based on a specimen collected by Koenig from low country Ceylon (Sri Lanka). He has given a full description from Koenig's manuscript. This specimen is presently available in Sir Joseph Bank's Herbarium (?). Koenig did not mention any specific locality for this species in Ceylon but considered it rare in the area. It was later recorded from Kandy, Kegalle and Kalutara districts of Sri Lanka (Jayasuriya, 1983).

Hooker described another species of Begonia viz. B. thwaitesii from Ceylon based on a collection from Ceylon (C.P..2808 in part). Part of this specimen was B. tenera Dryander. It differs from B. tenera by the leaves being variegated with green and purple blotches above, uniform dull purple beneath; margins broadly crenate, never dentate; apex usually asymmetrical, pubescent pink or purple. Scape, pedicels, ovary and outer surfaces of outer tepals densely hispid. Stamens about 65, connective truncate depressed at the top and the placenta proximally and laterally lobed. However these characters were not convincing for Jayasuriya (1983), who reduced this species to a variety of B. tenera, viz. B. tenera var. thwaitesii (Hook.) Jayasuriya.

Acknowledgements

The authors are grateful to the Director, TBGRI for the facilities provided and for the constant encouragement. They are

Taking A Director's Perspective: Guidelines for Making Superior Images

by Daniel Houston, Costa Mesa, CA

In an era of relatively inexpensive, highly sophisticated and user friendly cameras. a sentiment has proliferated that it's easy to create a great picture, and that anyone can do it with very little effort. Ironically, this condition is a problem that faces the editors of publications like The Begonian who strive to craft a product that is not only informative, but also visually striking. The truth is that the proliferation of feature laden consumer cameras has not created a tsunami of outstanding images. The reasons are simple. Good photography relies on a host of well-considered techniques most of which hearken back to the early days of photography. Great images don't just happen because you have a trick camera.

Let's begin by setting the context. Mostly, for The Begonian, we are shooting pictures

Begonia tenera Dryander

continued from page 130

also thankful to Dr. P.K.K. Nair, Director, ERRC and to Dr. A.G. Pandurangan, Head, Plant Systematics and Evolutionary Sciences, TBGRI for the encouragements.

References

Dryander 1761. Transactions of Linnaean Society London 1:169.

Hooker J.D. 1879. Flora of British India 2 : 652-65 3. L. Reeve & Co., London.

Jayasuriya, A.H.M. 1983. in Dassanayake and Fosberg (eds.), Rev. Hand*B*. Fl.Ceylon 4:139.

Mabberley, D.J. 1997. The Plant Book (Second Edition). Cambridge University Press, U K.

Trimen 1894. A Handbook of the Flora of Ceylon 2: 213. Bishen singh Mahendra pal singh, Dehradun.

Smith, L.B., Dieter C. Wasshausen. Jack Golding & Carrie E. Karegeannes. 1986. Begoniaceae, Part I: Illustrated Key; Part II: Annotated Species List. Smithsonian Contributions to Botany, Number 60: p. 240. of plants, or plant related activities. This means we typically don't have to contend with motion, or rapidly changing conditions. A photographer should approach each image just like a movie director. He should develop a clear vision of the final product, and then set out to create that image in the camera. If the initial effort falls short, it must be discarded, and a reshoot attempted. Here is a list of suggested practices that I have found to be essential for producing good images for this kind of photography. It is by no means an exhaustive list rather it is a distillation. Libraries, bookstores, and the internet are excellent resources for further investigation.

Vibration:

Always use a tripod and a cable shutter release. Hand holding is okay when there is no alternative, but the truth is that most people have lousy hand holding technique. For macro shots, there is no substitute. A tripod and cable release eliminates vibration, and lets you concentrate on some other very important details that you as the director should be considering, namely, composition and lighting.

Lighting:

This is often overlooked, when it is actually the most important aspect of good photography. There are so many aspects to lighting that I have broken the topic up into five separate sections.

Lighting #1: Thinking about Exposure:

Exposure in film photography is driven by the shadows since this is where detail is often lost. Exposure in digital photography is driven by the highlights due to clipping. In digital you can always extract the detail in the shadows, whereas an overexposed highlight is forever lost, and is very



The concept of "studio" is a matter of perspective. When you are directing your picture, it's all about understanding the properties of the light for a given defined space. Then you add or subtract based on the vision of the image that you want to create. Aside form the camera and its lenses, and the tripod, the materials for creating a "studio" in this case are humble - a folding chair, a black sweatshirt jacket, some available potting containers, a gooseneck lamp, and some cardboard. See how the tripod frees you up to study the setup and control the situation. And, "manual" lets me tune the camera setting to my liking, to my vision.

distracting, owing to the fact that our eyes are drawn to the highlights. Always bracket shoot. It is an error to think that an image of importance in this context can be captured with a single exposure. Anticipate the editing process, when you'll wish that you had a shot of that subject with a bit more exposure or a bit less.

Lighting #2: Assessment of Light and Directionality

As the director, you should also be thinking about the overall tone of the lighting. Appealing images have a gradient from light to dark, so beware of over illumination. The biggest misuse of lighting involves flash. Frequently it creates flat, soulless images, especially when the flash is on axis. I rarely use flash, but when I do it is always off axis. (Sometimes this means a second tripod for the off camera flash, or, for the adventurous, hand holding the flash and experimenting with the direction of illumination.) Another problem with flash is the way it can overdrive the highlights and thus increase the ratio between shadow and highlight. Again, getting the flash off the camera can help. Gentler directional fixed lighting is preferred by me, but whatever method you use, remember, that you must take control.

Combinations of lights frequently produce desirable results. Back lighting,

side lighting and all of the other directions should be considered and experimented with. There is no one way that applies to every image. Each subject cries out for its own unique lighting scheme. As an example, side lighting in macro images typically reveals fabulous detail that you didn't even realize was there.

Lighting #3: Color Temperature

All light is not created equal. Depending on the light source, it creates what is called a color cast. For example, some lights have very warm tone, and cause the resultant images to be yellow toned. Others are very cold toned, and cause a bluish tint in the resultant images. So, you need to be aware of the lighting conditions of your subject and how your camera is going to interpret them. Most of today's cameras enable you to select for color temperature or lighting conditions. In the old days you had to be savvy about the film you used and its response to certain types of lighting.

Taking Control: Manual versus automatic

It is my opinion that most good photography of stationary objects is shot in manual mode. Again, I am thinking like a director. I want control. Shooting in auto mode is a form of slavery. The camera's computer is making all of the decisions, not you. Shooting manual enables you to leverage so many things. Here is an example: Let's say that you have a plant staged in what appears to be nicely balanced light, but when you take the picture the results are not satisfying. Let's say the image is underexposed. With a tripod, in manual mode, you can lengthen the exposure time incrementally until you find the perfect interval. Same with color temperature. Auto makes decisions which you can be making better. Macro situations present a host of situations which illustrate why manual is essential. For example, in manual, you select the feature upon which to focus. Additionally, you know that depth of field is at a premium so you stop your lens down to a small aperture, and then compensate with a longer exposure time. Along the way you tinker with the position of the lights, and suddenly you've created a stunning image. You bracket shoot to be sure that you have some choice when you get to editing.

Lighting #4: ISO, another variable that you can set yourself

Given everything that we've discussed thus far, some of you may be asking about using the ISO setting to compensate for lighting deficiencies. Before digital, film was graded by its light sensitivity, its ISO rating. In an era of silicon sensors, ISO still refers to light sensitivity, and, just as was the case with film, the lower the ISO number the better the resolution. Generally I prefer to shoot with ISO set to 100, and this is mostly because I am always hungry for sharp rendition of the subject matter. Again, I am thinking tripod, and an extended shutter speed. Some cameras have an Auto ISO setting that can be used in manual mode, and there may be hand holding occasions when this is the best solution.

Background: Carefully examining your image composition

There is nothing worse than having achieved all of your directorial goals and then looking at the final product, and realizing that you were concentrating so much on the subject that you completely ignored the background. So often a good shot is ruined by a funky background. So, an important aspect of staging is also creating a proper background that is not distractive, and which enhances the primary subject matter. Don't be afraid to alter the point of view, or, use an artificial background to achieve a more dramatic result.

Post production: Image adjustment.

If you are not cleaning up your final images in Adobe Photoshop or some other photo editing software, then it is likely that your final images are not as good as they



I plucked some sprigs of *Begonia richmondensis* from a landscape mass planting near an industrial complex, while on the way to the "studio". I was already beginning to envision the final image, and how I would stage it. Of course I had to tinker with the orientation, the lighting, exposure time, etc, until I was satisfied that I had an image that was ready for final editing.

could be. Virtually everything that gets printed nowadays has been improved in image editing software. Sometimes it's because the camera failed to capture the exact hue that existed in reality. Sometimes it's because a highlight was a little over blown, or a shadow a little too dense. Sometimes it's because the image is just not quite as sharp as you hoped it would be. Or maybe it's a distracting detail in the background that just has to go. The key to image modification is subtlety. You don't want the viewer to ever suspect that manipulation has taken place.

Image resolution and file size

Remember, that generally speaking in photography for publication, more information is better than less. Let the editor size the final file size. Your job as the director is to create the highest resolution image that you can. Don't be afraid of those 50mb files. You editor loves them because it creates options for presentation. Low resolution images are often unusable because there is simply not enough information present. And sadly, you may have done everything else right, and been in the right place at the right time, and then cheated yourself and your editor by taking a 1mb image.

The Field versus The Studio

Much of what I have discussed here may seem to favor studio shooting. This is in part true, however, my concept of studio is very flexible. Any place where you can exert your vision onto the potential image environment becomes a studio. And, all of the techniques that I have discussed apply equally regardless of whether you are shooting on your kitchen table, a botanical garden, or in habitat. As the Director, you are always striving to control vibration, light and composition. You should already be the master of your camera, and should have defined the limits of its operation.

Learning to Experiment

One of the best tips I ever learned about photography I gleaned from a book by renowned nature photographer John Shaw. The gist of it is that you should learn to experiment with your lenses and your camera. Try out the concept of reversing lenses. or stacking lenses, and don't be willing to believe everything that the book says. I developed a technique using extension tubes with a microzoom, and a pancake lens reversed. The book says it's an unlikely combination, but in certain situations it is the perfect solution. That's why I say experiment. Get out of that auto everything frame of reference and broaden your perspective on what's possible. The concept of experiment will eventually take you into realms that hardly resemble photography as you formerly knew it. Your camera will become an assembly of components that no brochure illustrates, and your techniques will take you deep into software concepts such as deconvolution.

Embracing Critique

I think it's really important to get feed-

back on the images that you produce from people who know a lot more than you do, and who are brutally honest. We live in an era when technology leads us to think that we are all fabulous photographers. In fact, most who think they are, are not. You can only get better by learning to see better. It is humbling to learn that your prized image is at best mediocre. Acknowledging that you need guidance in this regard is a key first step.

A Concluding Comment

I hope that you can see, that all of the suggestions that I have made are really intertwined. True, you can select a few and get improved results. However, the final result is dependant on aspects of them all. There is one final piece of advice that rises above all of the techniques described here, and that is visualization. To me it is really the most important part of photography and it precedes the camera and the tripod and the light source. Learn to visualize. Study the subject that is to become an image. Imagine the perfect rendering, and then get that visualized image firmly set in your mind. Once it is there, set about recreating that perfect image in the camera. And, don't ever settle for less. If you achieve this method, then your editor's work will be a joy. And The Begonian will radiate artistic achievement as well as horticultural passion.

Canes at Cascade

The March meeting of the Cascade Branch was all about canes, the types, the care, the flowering, the



acceptable temperatures, and pruning. Dan Heims, President, shows the students from Oregon State University what makes a cane begonia. Submitted by Wally Wagner

A Word With You: Ovate vs. Elliptical

When is an ellipse an oval, or for that matter a circle? Webster says an oval is ellipsoidal. So is a circle. Puzzling for sure. Investigating begonia blade/leaf terms 'ovate' vs. 'elliptical' took me to my dictionary first and then to geometry, shapes, folds, symmetry, axes, radii, and foci. And, with the help of my GPS, I finally got to the two target blade/leaf shapes.

In geometry, an ellipse is formed when a flat plane cuts completely through a 3D cone at an oblique angle. The resulting shape can be folded into exact halves along two axes – the long one, and the short one the axes of symmetry. Cut through the cone parallel to its bottom and you have a circle, *'orbicular'* in begonia blade/leaf language as *B. rotundifolia*. To view that cone cut to an ellipse, and also some interesting graphics in motion, go to Wikipedia.

http://en.wikipedia.org/wiki/

Ellipse#Ellipses_in_computer_graphics

Stay with me. Visualize that cut cone and the resulting ellipse. In begonia terms, an 'elliptical' blade/leaf shape is about 2x as long as it is wide, the width being in the center of this shape, not the bottom or top as in *B. fruticosa*, *B. arborescens* and *B. con*vallariodora. Flatten out those sides and run them more or less parallel to each other and you have an 'oblong' blade/leaf.

'Ovate' leaves,' however, are egg shaped, with the broader end at the bottom (an all too familiar human shape). So it seems an oval becomes ovate when it slips into an egg shape, and you can fold it in half along only one axis – top to bottom. *B. geminiflora, B. gehrtii, B. olsoniae*, are all ovate. *B. nelumbiifolia* is broadly ovate. Flip this shape and you have 'obovate' leaves, which are wider at the shoulders – like some finely tuned athletes. Obovate has only one axis of symmetry as in *B. parilis*.

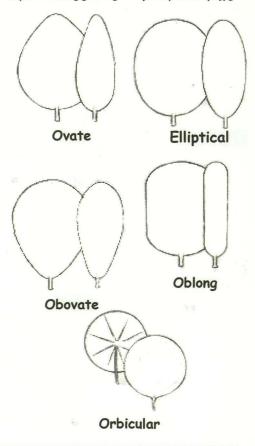
If one really wants to get technical,

By Claudia Goodridge, New Haven, CT

there are measurements to determine *ovate* or *elliptical* or *broadly ovate* or *broadly elliptical*. But with a blade/leaf and a drawing in hand I can be fairly certain of my own labeling and fairly consistently understand the experts labeling.

PS – In my last "A Word with You," I left my definition of *palmate* or *pinnate* venation partly unresolved. I resolved it. There is such a thing as *palmate-pinnate* venation – which means that the veins at the stem end are palmate, but branch out with distinctly pinnate veins closer to the tip of the blade/leaf as in *B. cristata*.

Line drawings for this article adapted from: http://www.anbg.gov.au/glossary/webpubl/lshape.jpg



THE BEGONIAN



LAURAY OF SALISBURY

Begonias, Gesneriads, Orchids Cacti & Succulents

432 Undermountain Road, Rt. 41 Salisbury, CT 06068-1102

Call ahead (860) 435-2263

Please visit us at: http://www.lauray.com B. 'Shaun's Fantasy' is a rex hybrid that is more upright than other Rexes. Gene Salisbury has used it successfully as both a donor and a receptor, along with B. handelii and B. U504, to obtain some really great hybrids.

B. 'Shaun's Fantasy' is a good, consistent bloomer and has been in constant bloom now since before Christmas. It would do well both inside a large terrarium and outside of a terrarium in a high humidity environment. It does like to dry out a little before being watered. It is easily propagated both by wedge cuttings and leaf/stem methods.
Photo and caption by Charles Henthorne

Visit Today! www.begonias.org

See all the 2010 Convention information under "Events"



B. palmata, Lower Dibang Valley, 2010 **'What's in a name?'' B. palmata D. Don [Platycentrum]**

uring my trip to document begonias in Arunachal Pradesh, India in 2006 as I walked along the base of a cliff scanning it for begonias, I almost fell over the trunk of a large tree, which had fallen across the narrow path. The moisture soaked trunk was covered in moss, with ferns, orchids, vines and what was clearly a variegated begonia twining around it, and spreading along the ground on either side. This was a lobed species with an obliquely cordate base. Each narrow, triangular lobe was acuminate at the apex, with a jagged silverywhite band running along the base of each of the 7 lobes to form a pear shaped ring around the central section of each leaf. Although it appeared to be scandent, it was a species, which rooted at the nodes, and spread itself up the hillside, creating a green and white tapestry shimmering in the late afternoon light.

On my return to the USA I registered this species as *B*. U544 with the ABS. When I sent a CD with pictures of the begonias I had

by Rekha Morris, Pendleton, SC

recorded during this trip to Jack Golding, he identified it as B. palmata, and sent me a two-page list of names for B. palmata, with the most common designation for it being B. laciniata. Since this was the first time I had encountered this species I did not realize that these multiple synonyms were the result not of the vagaries of egocentric botanists but of the incredible variations of this species in size, form and color. Since then I have recorded at least half a dozen variations in this species which has a range spanning over half a dozen countries from eastern Nepal through Bhutan and northeast India [Sikkim, Assam & Manipur], to Myanmar, Vietnam, China and Taiwan. [E. Irmscher, Mitteilungen aus dem Institute fur allgemeine Botanik in Hamburg, 1939, (X), pp.433 - 461]. In mapping the huge range of B. palmata, Irmscher has skirted Arunachal Pradesh, which in 1939 was an anomalous and little known territory referred to as the North East Frontier Tract [NEFT] by the British. However, in 1911

I.H. Burkill listed *B. laciniata* among the 8 species he recorded during his brief foray with a British armed force into what is today E. Siang, Arunachal Pradesh.

Although B. palmata is to be found from eastern Nepal to Taiwan, it inexplicably skips some parts in its octopus-like spread across the eastern sections of Asia. This is the case with the western districts of Arunachal where I have not yet encountered this species. It begins to appear sporadically and in small clusters from Lower Subansiri and becomes increasingly more prolific and diverse in its forms as it moves eastwards into Siang, Dibang Valley and Lohit. It was in Eastern Siang that I first encountered this species where the silverywhite variegated form often punctuated with an all green form cascaded down hillsides, under shrubs and through colonies of ferns, covering boulders, fallen tree trunks and stream banks in what appeared to be an irrepressible and surging growth cycle. However, B. palmata's luxuriant growth is quickly checked by the onslaught of the drier months, so that in November and December in many parts of its range through Arunachal it begins to look bedraggled and sparse, its leaves punctured and defaced by insects. By mid-January / February as spring rains begin to stir dull and dormant roots, B. palmata revives with amazing vigor.

In cultivation it continues this cyclical pattern of repression and regeneration. In my conservatory in Pendleton, SC the several forms of *B. palmata* I grow all but stop growing in the winter months. By February they begin to show signs of revival, and flower around mid-late June.

Polymorphism is not a rare occurrence in begonias, however *B. palmata* indulges in this tendency with baffling profligacy. Irmscher's lengthy treatment of *B. palmata* circumscribing the species into 9 major varieties on the basis of specific botanical attributes is the epitome of the ponderous and the sterile, diametrically at odds with the prolific luxuriance of a species as multifaceted and enticing as B. palmata.

Botanical distinctions necessary for classification invariably err on the side of a tedious and turgid litany of minutiae with little or no sensitivity to visual and aesthetic evaluation. Comforting as it may be to classify species and their varieties all too frequently solely on the basis of herbarium specimens, such descriptions do not reflect the many variations in wild populations of species, which often defy attempts to impose a rigid order or confine them within a straight jacket of definitions.

Were the foliage of *B. palmata* limited to shades of green from chartreuse and lime to the deep green of yew and olive, it would nonetheless be a striking species. Add to this foliage banded in silvery-white or primrose, often with a rosy edge, with the undersides in saturated shades of carmine and fuchsia, and we begin to capture the lustrous richness and kaleidoscopic diversity of this species.

Ranging in height from 6 - 36" *B. palmata*'s asymmetric leaves may be ovate or orbicular with 3, 5, 7, 9 or more deeply cut or shallow lobes. The palmately veined leaves often with a cordate base have ciliate or slightly serrate margins, and vary from being glabrescent to softly tomentose. The stems and petioles are covered in brown or rust colored hair giving them a tomentose or pubescent texture. The flowers, which are comparatively few, are white or pale pink except in *B. palmata* var. *flava* and *flavi-flora*, which have yellow flowers.

Although some of the forms of *B. palmata* I documented in Arunachal fall within the descriptive range of Irmscher's varieties, some do not. *B. palmata* var. *khasiana* is readily recognizable with its foliage almost as wide as long, the comparatively shallower lobes, its tomentose stems, and its height varying from 20"- 36". I documented these in the Khasia Hills of Meghalaya [formerly part of Assam] at elevations approximately between 1300 – 1400m.

Another form of B. palmata also from







Clockwise, top left: A & B. - B. palmata var. khasiana, Khasia Hills, Meghalaya, 2008. C. - B. palmata, Lohit, 2010. D. - B. palmata showing both faces of its foliage, E. Siang, 2007. E. - Variegated B. palmata, Lower Dibang Valley, 2010. F. - Silver zoned B. palmata, Lohit, 2009. G. - B. palmata, female flowers blooming in June in Pendleton, SC. H. - B. palmata var. khasiana, Khasia Hills, Meghalaya, 2008. I. - B. palmata showing both faces of leaf, Meghalaya, 2008.















Top, left: *B. palmata* leaf resembling Irmscher's *B. palmata* var. *flava* but with white flowers instead of flava's yellow ones. Top, right: *B. palmata* growing through ferns, E. Siang, 2007. **Right**: *B. palmata*, E. Siang, 2007

the Khasia Hills has the shallow lobes of Irmscher's *B. palmata* var. *flava*, but its flowers are white instead of yellow. So where do we fit this form among the generally accepted variations of *B. palmata*'s innumerable forms?

One small colony of an unlobed, whitebanded form resembled *B. rex* Putzeys from a distance. However its long tomentose stems, which branched and rooted at the nodes suggest that this is a form of *B. palmata*, possibly Irmscher's *B. palmata* var. *gamblei*, which according to Irmscher occurs in Sikkim and the environs of Darjeeling.

Regardless of their varietal designations, all the forms of *B. palmata* which I have documented to date in Arunachal and the Khasia Hills of Meghalaya, and which illustrate this note are readily propagated from seeds or stem cuttings. Their wide range encompassing a variety of habitats makes this species tolerant of a variety of conditions in cultivation. *B. palmata*'s intrinsic qualities of form and color coupled with the ease with which it adapts to various growing conditions qualifies it a species well worth cultivating in any and all forms and varieties available.





As I attempted to follow Irmscher's ponderous German discussion regarding the classification of *B. palmata*'s various forms, I found myself increasingly in favor of rejecting this proliferation of varietal names. Feeling as I did I could not help but draw comfort from the well-known line from the balcony scene in Shakespeare's Romeo and Juliet, Act II, sc. Ii:

"What's in a name? That which we call a rose by any other word would smell as sweet."

> Rekha Morris April 25th. 2010

IN THE MAILBOX A Season of Transition

By Greg Sytch, Horticultural Correspondent

The muggy, warm days of summer will be coming to an end, and as the days shorten the nights cool. Fog may begin forming in the longer hours of darkness, and begonias will also start slowing down their growth in areas where nights are cool enough. This is the time to prepare for indoor growing (if you grow indoors in winter).

First, check for signs of any insects or diseases. Insects can easily be brought indoors to wreak havoc for the winter. Although begonias are generally not bothered by bugs, they can and will spread to other plants. Begin washing off plants with the hose. Use a fairly hard spray. Then give a spray of soapy water. Repeat the day or two prior to the plants coming in. Check the bottom of pots, and inside the soil. You will be glad you did.

Loggee's 141 North Street • Danielson, CT 06239 Your Source For Tropical Container Plants For Home and Garden

Begonias plus fragrant & flowering tropicals!



Contact us for your free catalog: 1-888-330-8038 www.logees.com Diseases are generally not a major problem in the early fall, but to be sure, remove all debris as it falls, and any leaves that are not healthy. Once inside, they can punish you and spread to anything in their path. Throwing baking soda in the soapy spray helps to discourage diseases.

Fertilizing should still continue, but a little weaker. Use half-strength, or even better place some in the same spray above and do it all at once. Spray the soil, too, so it all soaks in.

Any additional questions? Please e-mail me: gsytch@cs.com.

Q: I found some small caterpillars on my begonias, and they were chewing the leaves in places. There was not a lot of damage, but the critters were very small and I have never seen them before. What should I do?

A: These tiny moth caterpillars can do quite a bit of damage, but once they grow up they are gone. There are two choices. Keep spraying with soapy water to discourage them OR continue checking under leaves for their eggs or larvae and destroy. The insecticide that would help is really not necessary as it is strong, and expensive. The caterpillars will go elsewhere or fly away.

"BEGONIAS OF SO. CALIFORNIA"

You are invited to an exhibition and sale on Sat. & Sun., July 10th & 11th from 10:30 a.m. to 4:00 p.m. at The Sherman Library and Gardens, 2647 E. Coast Hwy

(MacArthur & Pacific Coast Hwy) in Corona del Mar, Calif. Sponsored by the L.A. and Orange County branches of the American Begonia Society admission is only \$3.00, which gives you access to the Gardens as well as the show and sale. For more information or directions call Bobbie West at (714) 816-0717

or e-mail bboopfans@aol.com.

VOL. 77 JULY/AUGUST 2010

Save Our Species Project Begonia opuliflora Putz. Section Ruizopavonia?

By Jan Brown, Los Angeles, CA

first became intrigued with *B. opuliflora* while looking through old Begonians in 2007. When I saw the botanical by Charles Lemaire (on the back cover of this issue) and read Thelma O'Reilly's wonderful article "The Elusive *Begonia opuliflora*" in the Nov/Dec.1997 issue (page 208), I was hooked.

How could I get this beautiful species? As I read on in Thelma's article I noted a reference to "Brooks #113" and that it might be B. opuliflora. Good grief, I have Brooks #113, somewhere. And so began a frantic search. I remembered a Rudy Ziesenhenne plant label in his distinctive printing and had wondered about the strange name of the begonia. I had picked it up a few years before at Rudy's, always a great place to get rare and unusual species. At last I found it back in a corner, not dead but not good and very neglected. A transplanting with some fresh soil and a good feeding did wonders and now three years later it is over 3 feet in an 8" pot.

It has bloomed several times, in the spring, and is just now finishing. I HAVE SEED! For the first time and after many attempts to pollinate, this year it worked. If all goes well I will share this seed with the Seed Fund for further testing. Thelma O'Reilly received seed from a Scott Hoover Mexican expedition in 1980 that was labeled *B. opuliflora*. She got 100% germination but the plantlets damped off after first transplant. Thelma said, "Apparently Rudy was the lone donor to grow and retain this rare species. Mister Begonia, we thank you"

Thelma O'Reilly has the *B. opuliflora* that she describes in her article. She gave me a cutting last year which I lost, sadly,



but we will try again. I would love to have pollen from her plant to see what happens. There is still a question mark about whether Brooks #113 and *opuliflora* are the same. Look at the picture of the Lemaire print leaf with my 113 leaf (opposite page) and read the description that follows from *Flora of Panama (Begoniaceae), 25. Begonia opuliflora* Putz, in Fl. des Serres I. 10: pl. 995. 1854-55.

Suffruticose, branching, over 1 m. high, glabrous. Leaves straight, strongly asymmetric, ovate or elliptic, acute, 8-9 cm. long (my largest leaf is 10 cm with the average being 7-8 cm.) rounded at base, pinnate, subulate-dentate, petioles much shorter than the blades, stipules oblong-cordate, long-aristate, membranaceous. Peduncles axillary, about 15 cm long. Inflorescences umbelliform, globose, 50-60-flowered. Pedicels elongate. Flowers white.

Staminate tepals 4 subequal, broadly elliptic, obtuse, entire. Stamens about 30, slightly connate at base, anthers oblong. Pistillate tepals 5, oblong or lance-oblong, subacuminate. Styles 3, connate, stigmatic tissue lunate. Fruit 3-winged, the wings very unequal, the largest much wider than high, twice the width of the others. Endemic Coclé: Described from cultivation from the former Province of Soto which Centered on Penonomé. (This is in Panama now. It was once part of Columbia or New Grenada (Viceroyalty of Novo Granada) that included Columbia, Ecuador, Venezuela & Guyana.)

Brooks #113 was found by William (Bill) Brooks in Mexico. He describes the plant he had listed as #113 in The Begonian, August 1952, p. 177:

"The prize of the day was found among the lower forms of growth or trailing among the brushy growth

and at other times standing alone, where its numerous stems from a common center created a bush effect resembling a heavy, flowering Fuchsia. This form of begonia produces a strikingly different seed pod. Its keel wings are more or less of a succulent structure and not thinly formed as in most begonias. The pod itself, being long and pendant and of good substance, takes on a ruby color when exposed to the sun. With a little imagination, this gives the effect of an artificial plant decorated with rubies. Seeds of this beauty were numbered 113 and called *Begonia Fuchsiaflora*.

This begonia was found "at an elevation near 5000 feet above the Gulf of Mexico."

Now this description does not sound like *B. opuliflora.* Could it be that a labeling mix up occurred? And that the plant I have labeled Brooks #113 is *opuliflora* and Brooks 113 is another begonia entirely. So it would seem. Thelma O'Reilly wrote in her 1997 article about her plant labeled Brooks 113: "Flowers are white, medium sized, with four staminate tepals, five pistillate tepals and three unequal wings. And from Loudons Encyclopedia of Plants, p.



1540: *B. opuliflora*—An ornamental stove undershrub from New Grenada, with pure white flowers, which have golden stamens, produced in heads Resembling Guelder Rose." And from the Illustrated Dictionary of Gardening, p. 175: Stem one foot high, branching, smooth leaf ovate oblongacuminate, toothed, smooth above, hairy below... Flower white, in compact umbels, on erect scapes. Spring, New Grenada, 1854.

Questions that remain: Who collected *opuliflora* and brought it to Rudy Ziesenhenne, if not Bill Brooks? Was it Scott Hoover? Are there any known hybrids of *opuliflora*? Does anyone out there have this begonia that has not had access to the Ziesenhenne nursery? And does anyone have a begonia that looks like the very distinctive and interesting Brooks #113. Please contact me if you have any information or if you have/had these plants - begoniabrown@ yahoo.com.

Begonia opuliflora lives on in beauty thanks to dedicated researchers like Rudolf Ziesenhenne, Thelma O'Reilly and Scott Hoover.

...continued on pg. 154



Superba Canes Article and photos by Brad Thompson, Vista, CA

Originally, the definition of what made a superba was parentage. Eva Kenworthy Gray produced the first superba type canes in 1926 when she crossed *B. aconitifolia* with *B.* 'Lucerna'. The resulting plants all had names with superba in the name such as *B.* 'Superba Azella'. Later, the superba name that she used in her hybrids was adopted to include all canes of similar parentage. They all share the feature of having large, lobed or deeply cleft leaves, on large growing plants. They were totally different than previous canes of the time so were separated out as a new type.

As you can imagine, since 1926 there have been lots of generations and a multitude of new hybrids created of mixed parentage. There is some debate about exactly what a superba is, but you can reasonably call any begonia that has superba parentage and cleft or deeply lobed leaves a superba.

There have been many contributors to our

stock of superba canes but it was when Irene Nuss and Belva Kusler came along that this type of begonia came into its own. In fact it's very hard to even think of superba canes without immediately thinking of either B. 'Irene Nuss' or B. 'Sophie Cecile'. Most people think of the large fancy leaves as the attractant for this type of begonia but I have to say that the huge umbels of flowers, many also fragrant, that are as big an attractant. Irene Nuss could identify all of her hybrids by the flower cluster and probably still can. If you showed her a leaf or plant she would sometimes be uncertain of what it was but show her a flower and she always knew.

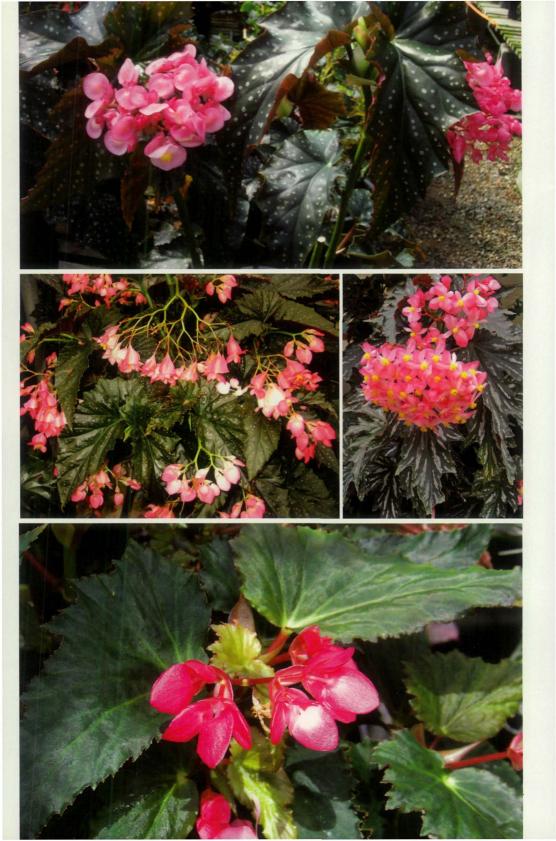
Superbas were the first begonias I really worked with because I was so impressed with Irene's hybrids in particular and all the superbas in general. I have always been concerned with the total package when creating new hybrids but have to say that like Irene, often it's the flowers that help me decide whether a plant gets a name. I have mostly combined the work of Irene Nuss, Marge Lee and Belva Kusler in my crosses. I have to say that I have sometimes faced criticism because I've been told I named plants that look alike. It is true that I have named plants that look alike, at least until they bloom. A lot of my breeding has been towards a certain flower type or color. All superbas have fabulous leaves; it's the flowers that complete them as the pictures with this article show.

A superba in full bloom is as impressive as some tuberous begonias. I know one long time begonia grower who was first smitten with begonias when she saw the flowers of *B*. 'Jumbo Jet' at a show. Although I have dabbled in other types of begonias, the superba canes will always be my first love. I may even make a few more because I don't think there can ever be too many of a good thing.





Opposite page: B. 'Paper Snowflakes' This page, top, right: B. 'Irene Nuss' Bottom: B. 'Andromeda'



CLAYTON M. KELLY SEED FUND

The Margaret Lee Branch, San Diego County, CA

The seed fund is a service to members only. It is a privilege of your membership. Please self pollinate your species begonias, collect the seeds and send them to the seed fund. We depend on your contributions of seed to make a wider variety of species available to the members.

Listed below is the newly received seed now available from the Seed Fund. A special "thank you" to Beatrice Huckriede and Johanna Zinn for this contribution of seed:

B. dipetala, B. peltata Open pollinated: B. 'Bonfire' B. 'Million Kisses' (elagans) and romance) B. sericoneura, B. sizemoreae, B. 'Vanderveldiana'



Packets of seeds of species and U numbers are \$1.50. All packets of cultivars (including open pollinated) seeds are 50 cents per packet. Very rare seeds and newly collected seeds will be \$2.00 or more per packet. California residents please add 8.75% sales tax. All orders must be accompanied by check or money order, payable in US funds ONLY to the Clayton M. Kelly Seed Fund.

Please send your order with payment to: American Begonia Society, Clayton M. Kelly Seed Fund,

Dean Turney, 467 Fulvia Street, Encinitas, CA 92024,

e-mail: dean @deansmail.us

Cost of mailing: US only: 1-12 packets \$1; 13-24, \$1.35; 25-36, \$1.71; 37-48 (2 cans), \$2.30; 49-60, \$2.66. Canada only: 1-12 packets, \$1.10; 13-24, \$1.46; 25-36, \$1.82; 37-48 (2 cans) \$2.35; 49-60, \$2.71. Mexico only: 1-12 packets, \$1.15; 13-24, \$1.51; 25-36, \$1.87; 37-48 (2 cans), \$2.50; 49-60, \$2.81. All other international mail: 1-12 packets, \$1.85; 13-24, \$2.68; 25-36, \$3.68; 37-48, \$4.68; 49-60, \$5.68.

DISCLAIMER: The seeds distributed by the seed fund are identified as received from the donors. The species names (in italics) reported here are correct based on the latest information from BEGONIACEAE, Ed. 2; Golding, and Wasshausen. Hybrid names are made consistent with the "ABS Check List of Begonia Hybrids" edited by Howard Berg dated 9/13/2005.

Opposite page: More of Brad Thompson's Superba begonias. (See article previous page) Top: B. 'F. M. Donovan' Middle, left: B. 'Pink Tafetta' Middle, left: B. 'Lady Vanderwilt'. Bottom: B. 'Lomita Lady'. Above: B. Bolero" Photos by Brad Thompson

VOL. 77 JULY/AUGUST 2010

Begonia venosa Skan ex J. D. Hooker 1899. Brazil

Article and photos by Peter Sharp, Royal Botanic Garden, Sydney (NSW)

his shrub-like is possibly the most extraordinary begonia in a family noted for the unusual. Whilst most begonias are native to reasonably well watered habitats, this one thrives in dry locations - so much so that Mark Tebbitt. in his book Begonias, notes that it 'grows naturally in exposed localities in full sun' and that 'at the United Kingdom's National Begonia Collection at Glasgow Botanic Garden it grows in a cactus and succulent potting mix away from the rest of the begonias and is thriving under somewhat dry conditions'. This we have found to be the case in the Sydney Royal Botanic Gardens where it grows in full sun for most of the day, but due to the watering system it does receive the same watering as the rest of the begonia gardens despite not really needing so much. This 'over-watering' does not seem to affect its growth or appearance.

So, here we have a spectacular begonia, which relishes full sun and a minimum of water – surely the perfect plant for many places where perhaps begonias do not otherwise thrive. To ice the cake it needs a minimum of care and is almost totally immune to disease and insect attack. It does tend to grow tall - up to 80 cms - but do not be tempted to prune out the tall stems until new basal growth has reached a substantial size. As with all this family it responds to a plentiful supply of fertiliser; we recommend a controlled release applied at the recommended intervals for garden grown specimens with additional regular applications of water-soluble for those grown in pots. Yes, it grows equally well in pots or tubs and will fill that corner on the sunny portico or veranda to perfection, and for the sundrenched courtyard it is a natural. As usual, we recommend several plants in a large pot or tub for the best effect. After the first year or two it will produce more than one basal shoot so that, over time, it becomes a satisfyingly full specimen plant. We have one in our display area, which has been in the same 20 cm (8 inch) squat pot for at least 6 years and now fills it to produce a quite amazing display plant.

To make it even more spectacular, *B. venosa* flowers all summer with unusual white blooms held above the foliage. Seeds are produced in abundance and we find that



THE BEGONIAN

propagation from seed is the best way to increase numbers. Tip cuttings can of course be used but few such are offered until you have a very large planting indeed. The beautiful silver grey effect produced by the small hairs on the leathery, dark green leaves disappears when they are wet, and can be rubbed off. The papery bracts which wrap around the succulent stems, called "Dragon Fly Wings" in Isamu Misono's book '*Begonias'*, add to the charm of this most unusual member of the Begonia family.



Creating and Maintaining A Terrarium, Second Edition By Wally Wagner



Everything you need to know to successfully create and maintain a terrarium.

31 Pages of instructions, illustrated, step by step, plus lists of plants suitable for terrariums. Includes new section on creating Bubble terrariums and Book list for information on raising begonias. Also includes guidance on selecting a terrarium, making the foundation soil, choosing plants that do well in terrariums, and instructions on planting, lighting, and watering.

\$15.00 each plus \$3.00 postage USA. Send check to Wally Wagner, 4560 39th Ave. NE, Salem, Oregon 97305 or use Paypal (wwwno1@Q.com) Begonias Gesneriads Rare, Flowering Plants & Vines

Kartuz Greenhouses

1408 Sunset Dr. Dept. B Vista, CA 92081-6531 760-941-3613

Please visit our online catalog:

www.kartuz.com

Pacific Horticulture

a quarterly journal about plants and gardens of the West Published by the NON-Profic Pacific Horticulture Foundation Makes a fine gift for gardeners Subscriptions are \$20/year USA, \$23/year Canada and Mexico, \$25/year other countries. Send check, Visa or Master Card to: PHG, Box 485, Berkeley CA 94701-0485



Growing Underground

He told his wife that a 400 square ft. greenhouse would be plenty of space for his orchid business. But he was wrong.

When the business expanded way past that first greenhouse, David Bird, horticulturist and owner of Bird's Botanicals, looked for a creative solution. Running a greenhouse in Kansas City, Missouri has plenty of pitfalls like ice storms and tornadoes. He did find a perfect place for his orchids though - in a cave.

In this subterranean jungle the temperatures stay fairly constant at 55 -75 degrees F. and the humidity hovers around 65 - 85%. By moving plants to different locations in the cavernous rooms he is able to take advantage of different micro climates. For example, it's a little cooler near the fresh air vents. However, there's no additional heating or cooling as the lights emit all the By Linda Tamblyn, Merriam, KS

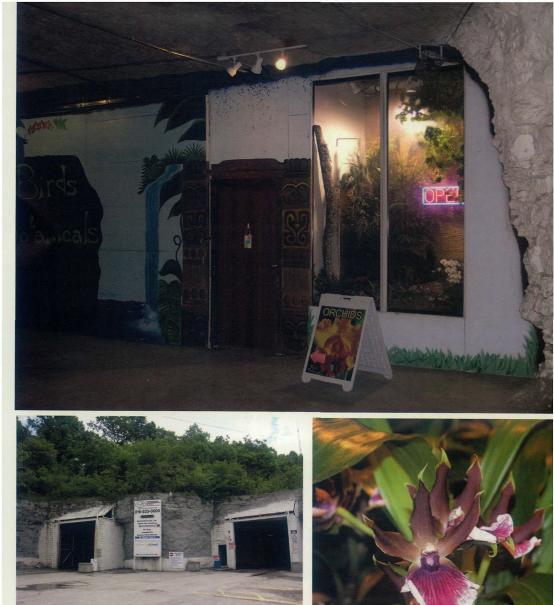
heat that is needed. Fans that run constantly keep the air buoyant and moving.

David uses High Pressure Sodium (HPS) lights that stay on about 11 hours a day. Tables filled with healthy orchids in full bloom attest to the success of this method. Coming through the darkness of the cave, and then opening the door to Bird's Botanicals is like walking into a sunny day in mid summer at anytime of the year.

Over 2000 varieties of orchids are grown in this cave garden as well as a smattering of begonias, selaginella, amorphophallus, gesneriads, papyrus, sundews, ferns, succulents, and more. David says that to him propagation is the fun part. That's easy to see. And, believe it or not, he admits that weeds are a constant battle.

To find out more about David's unique operation visit www.birdsbotanicals.com

Above: With over 10,000 orchids, as well as other plants to care for, David Bird spends plenty of time in his underground jungle. Right, top: The dimly lit entrance only hints at the tropical paradise within. Center, right: Zygopetalum ' Rhein Blue" Center, left: Into the caves at the Interstate Underground Warehouse – home to Bird's Botanicals. Bottom, right: High Pressure Sodium lamps are an excellent substitute for bright sunshine in the cave. Notice the orange hue – great for plants but a photographer's nightmare. Bottom, left: Begonia 'Grey Feather' grows rampantly under a bench. All photos by Judy Pigue







American Begonia Society Book Store

The Book Store has a long tradition in the American Begonia Society, and has always been a valuable source and aid for begonia research and general interest. A list of the current inventory follows.

Begoniaceae, Edition 2, Part I: Annotated Species List, Part II: Illustrated Key, Abridgement & Supplement

Jack Golding & Dieter C. Wasshausen, 2002, Smithsonian Institution, Volume 43: 1-289 \$55.00

ABS's Unidentified Species Listing Freda Holley, 2007 \$15.00

Begonia U001 to Begonia U520 (A new update/ revision will be ready later this year.)

Seeing Begonia

Jack Golding 2003, Revised 2005

Jack Golding's last work. "...dedicated to the many who look at their Begonia but do not see the details." \$15.00

Begonia Hybridizing: A Primer Freda Holly, 2007.

An invaluable source book for the beginning or advanced begonia hybridizer. \$15.00

Begonia Notes Rudolf Ziesenhenne, Reissued by the Thelma O'Reilly Reprint Fund

Originally printed in the Santa Barbara Branch, La Begonia Barbareña \$15.00

Mildred L. Thompson, reissued 2009, "An addendum for particular portions of Begonias: The Complete Reference Guide (Times Books, 1981). Includes species and hybrids and many pictures. \$18.00

Begonias of Peninsular Malaysia Ruth Kiew. A magnificent work with glorious pictures. \$55.00

The Begonian on DVD

3 DVD's - #1 1934-1958, #2 1959-1979, #3 1980-2005 \$79.00: Individual DVDs \$33.00

Constitution of the ABS, Revised & Approved, 2008 - \$ 3.00

To order: All prices include shipping, foreign & domestic. Send check payable

to theAmerican Begonia Society and your order to Carol Notaras, 2567 Green St., San Francisco, CA 94123, 415-931-4912 cnotaras@sbcglobal.net or order online at begonias.org by PayPal.

For questions and availability, email or call Book Store Chairman Janet Brown, begoniabrown@yahoo.com 310-670-4471



Begonia opuliflora flowers

Begonia opuliflora Putz. continued from pg. 145

Bibliography

Online: Biodiversity Heritage Library, Annals of the Missouri Botanical Garden, The Illustrated Dictionary of Gardening, Loudon's Encyclopedia of Plants, Les Plantes de Serre.

References:

Begoniaceae Part I: Illustrated Key Part II: Annotated Species List, Lyman *B*. Smith, Dieter C. Wasshausen, Jack Golding & Carrie E. Karegeannes.

The Sections of *Begonia*, J. Doorenbos, M.S.M. Sosef, J.J.F.E. de Wilde.

The Begonian Index 1941-1998, Prepared by Pat Williams, South Australian Begonia Society, Inc.

Begonians on DVD: #1 1934-1958, #3 1980-2005.



A small sample of breathtaking and award winning begonia entries at the recent Southwest Regional Get-Together. If you like begonias this was the place to be... because it just doesn't get any better than this! A very special thanks to everyone who worked so hard to make this gathering such a great success and so much fun. Photo by Tom Anderson



Achimenes, Aeschynanthus, Chirita, Columnea, Drymonia, Episcia, Kohleria, Nematanthus, Petrocosmea, Sinningia, Streptocarpus... These and many other gesneriads are excellent plants for the greenhouse hobbyist.

Purchase our 56-page manual "How to Know and Grow Gesneriads" for US\$10 postpaid anywhere, or join The Gesneriad Society for one year for US\$25 in US\$A, US\$30 elsewhere. Go to www.gesneriadsociety.org or send check or credit card number with expiration date and CVV code to The Gesneriad Society, Dept AVM, PMB 637, 1122 E Pike Street, Seattle, WA 98122 USA. New members receive a copy of "How to Know and Grow Gesneriads," two back issues and the next four quarterly issues of our journal *Gesneriads*, a package of mixed gesneriad seed, access to the world's largest source of gesneriad seed, and many other benefits.

Join the National Fuchsia Society

MEMBERSHIP \$15 per year includes bimonthly FUCHSIA FAN. The new A to Z on Fuchsias abridged version \$6.95 plus \$1 shipping (CA residents add \$.42 tax.) Mail to: National Fuchsia Society, 11507 E, 187 St., Artesia CA 90701 PARADISE of Begonias

Step into a

Palm Hammock Orchid Estate

9995 SW 66th Street Miami, FL 33173 305-274-9813

www.palmhammockorchidest.net

Also specializing in orchids, ferns, rare plants, gesneriads and more!

BEGONIA GOLD RUSH 2010 AMERICAN BEGONIA SOCIETY CONVENTION SEMINARS

Seminar Chairman, Carol Notaras has gathered some of the world's best begonia experts to speak at this year's convention in San Francisco. You'll want to be present on Tuesday for the first one. The schedule follows:

"Exploring the Fantastic Diversity of Asian Begonias"

Dr. Ching-I Peng, Tuesday evening.

Dr. Peng is the Curator of Research Museum & Biosystematics & Begonias at the Biodiversity Research Center, Academia Sinica, in Taiwan. He has worked on *Begoniaceae* with the late Jack Golding and is presently aiding Dr. Rekha Morris in her research on Asian begonias. Dr. Peng's article on *Begonia vietnamensis* appeared in the Jan/Feb Begonian, Vol. 77 written with Nguyen Quang Hieu. This seminar is not to be missed.

"Begonia Hunting in Ushuata"

Dr. Rekha Morris, Wednesday evening Rekha will talk about her recent expedition in India and will follow the seminar with an auction of seed and more from that trip. Almost every issue of The Begonian carries an article by Dr. Morris. She is a fearless explorer who travels the world in her search for new begonia species and is always an entertaining and enlightening speaker.

"An Update on Begonia Studies"

Dr. Mark Tebbitt, Thursday evening

Dr. Tebbitt's book *Begonias: Cultivation*, *Identification, and Natural History* has become essential reading and a reference work for any begonia lover. He currently teaches botany at the California University in California, Pennsylvania. Mark holds a PhD in Begonia Taxonomy from the University of Glasgow, Scotland.

"Begonia Capital of the World"

Andy Snow, Saturday morning

We start the morning (not too early) with Andy Snow of Golden State Bulb Growers. He will tell about the Brown Bulb Ranch that began in 1911 in Capitola founded by James Brown. By 1960 the Brown Bulb Ranch was the largest distributor of bulbs to retailers west of the Mississippi River. The name of the company was changed in 1960 and is still in business today. This is good news for tuberous growers who lost beloved Antonelli's this year.

"His Junk"

Morris Mueller, Saturday morning

A light-hearted talk about what this Past President of the ABS does with his begonias to get them growing.

"Time Lapse Begonias"

Mike Flaherty, Saturday morning

Mike closes the seminar program with a fascinating time-lapse study of tuberous and rhizomatous begonias as they progress through the spring and summer. The camera will show us Paul Carlisle's and Julie Vanderwilt's plants and gardens and some rich & famous spots in Montecito.

We think you will agree that the seminar line up for 2010 is one of the best ever. We hope you will be there, not only to be entertained, but enlightened by these wonderful begonia experts. –Jan Brown

The VIOLET BARN Home of Rob's Violets	w
Shipping quality plants since 1985	
BEGONIAS TOO!!	
A good selection of miniature and smaller growing varieties	
10 DIFFERENT, OUR CHOICE \$35 Add \$12 per order for shipping	
We'll ship <u>anywhere</u> at <u>anytime</u> (Ask us about winter delivery)	
SAFE DELIVERY GUARANTEED	1
For full color catalog, send \$2	
PO Box 696, Naples, NY 14512	
Phone: 585-374-8592	
www.violetbarn.com	

THE AMERICAN

ww.taylorgreenhouses.com

Printed list available for \$1.00

Over 200 Varieties of Begonias

Also Streptocarpus, Exotics, Herbs

Free shipping on orders of \$75 and up

Taylor Greenhouses

9228 Matthews Rd Portland, NY 14769

AIS is the International Registration Authroity for Hedera, provides sources for new and unusual ivies: IVY SOCIETY INC publishes three ivy newsletters, Between the Vines, and one IVY Journal a year with reports on research hardiness

testing, life-sized photos of ivies. Each member also receives an ivy plant. Membership: General \$20; Institutional \$30; Commercial \$50.

Information: American Ivy Association, P.O. Box 2123, Naples, FL 34106-2123



The Association for plant & flower people who grow in hobby green houses and windows!

Ouarterly Magazine and Newsletter * Growing & Maintenance Help & Advice Dues: USA \$28/yr, Canada/Mexico \$30/yr, Overseas \$31, (US. funds/bank, MO) Sample magazine \$3.50, Directory of Greenhouse Manufacturers & Distributors \$2.50

> **Hobby Greenhouse Association** 80 Deaconess Rd, Ste. 443, Concord, MA http://www.hobbygreenhouse.org

"Begonia Heaven in 2011"

"The preservation and conservation of begonia species with a focus on Asia"

Australian Begonia Convention in 2011

Speakers: Dr. Tim Entwisle; Dr. Mark Tebbitt; Paul Nicholson; Marilyn Watson; Ross Bolwell and others to be advised.

Friday evening, March 11, 2011

Saturday, March 12, 2011

Sunday, March 13, 2011

Monday, March 14, 2011

(Post convention tours/activities)

The Maiden Theatre Royal Botanic Gardens and Domain Mrs Macquaries Road Sydney NSW 2000 Australia

Hotel:

The Sebel Surry Hills, Sydney 28 Albion Street Surry Hills NSW 2010 Australia ph. +61 2 9289 0066

> Numbers limited to about 100 delegates, capacity of the venue.

Reserve your place on the priority list by contacting:

The Convention Secretary, Gordon Chivers 3 Rosebank Ave **Epping NSW 2121** Australia

ph: + 61 2 98698273 email: thechivers@optusnet.com.au Kind regards, Ross Bolwell. Convention Chairman The NSW Begonia Society Incorporated.

B. 'Lady Mcelderry' - a superba begonia. Photo by Brad Thompson

Privacy Policy

Your privacy and the privacy of all ABS members or of those who contact us is of the highest priority. This privacy and terms of use statement explains what information we gather from you, how it may be used by us and how it is protected. If you have any questions, please contact us.

If you are an ABS member or request information from ABS, we use the information you submit to fulfill your requests (such as sending informational materials, fulfilling your order or responding to specific inquiries). We also may use information for purposes of the Society including providing names of ABS members to those wishing to start a branch in the ABS or in connection with internal communications (such as invitations to events). If you do not want your information shared, let our membership chairman know by email or phone. This information is used for Society-related contacts only. We will not knowingly collect or use personal identifying information from children younger than 18 without parental consent. If knowledge of any information from any child younger 18 is collected, we will immediately delete such information.

If you are a member of ABS or submit material to the Begonian, your information may be published in the Begonian either in association with the published material or in reporting business of the society including the directory on the inside back cover. If you submit material in any form including letters, articles, and photographs, it is assumed that these are submitted for publication unless you specifically request that material not be published. Be aware that it is the policy of ABS not to copyright material in the Begonian or restrict its further use so long as credit is given as to source.

There is a privacy policy specific to our web page on our website at www.begonias.org.

We do not otherwise sell, rent, exchange or disclose our client lists or information about our web site users or our members, except to the limited extent necessary to protect the rights, property and safety of our Society, our members, or others or to comply with applicable law. In the event of dissolution of the Society, all member data will be destroyed.

ABS Elected Officers

President...Cheryl Lenert, 21744 FM 2920, Hockley, TX 77447. Ph: 281-255-9004; lenert@flash.net

Past President...Mary Sakamoto, 9682 Featherhill Dr., Villa Park, CA 92861; Ph: 714-637-8787; m.sakamoto@sbcglobal.net

1st Vice-President...Gene Salisbury, P.O. Box 452, Tonkawa, OK 74653; Ph: 580-628-5230; geneann@sbcglobal.net

2nd Vice-President...Doris Happel, 1958 Anderson Lane, Palm Springs, FL, 33406; Ph: 561-434-3745; dbhappel@bellsouth.net

Secretary...Richard Macnair, 59 Walker St., Cambridge, MA 02138; Ph: 617-876-1356; RNMacnair@msn.com Treasurer...Carol Notaras, 2567 Green St., San Francisco, CA 94123; Ph: 415-931-4912; cnotaras@sbcglobal.net

Appointed Chairmen &

Directors

Audit...Paul Tsamtsis, 1630 F St., Sacramento, CA 95814-1611

Awards...Ann Salisbury, P.O. Box 452, Tonkawa, OK 74653; Ph: 580-628-5230; geneann@sbglobal.net

Ballot Counting...Ingeborg Foo, 1050 Melrose Way, Vista, CA 92083; Ph: 760-724-4871

Book Store...Jan Brown, begoniabrown@yahoo.com 310-670-4471.

Branch Relations...Mary Bucholtz, 1560 Lancaster Terrace #1008, Jacksonville, FL 32204; Ph: 904-353-9111 Business Manager...Gene Salisbury, P.O. Box 452, Tonkawa, OK 74653; Ph: 580-628-5230;

geneann@sbcglobal.net

Conservation...Bill Claybaugh, 1702 Country Club Dr., Crosby, TX 77532; Ph: 281-328-5133;

absastro@hotmail.com

Convention Advisor...Mary Sakamoto, 9682 Featherhill Dr., Villa Park, CA 92861; Ph: 714-637-8787; m.sakamoto@sbcglobal.net Convention Chair...Carol Notaras, 2567 Green St., San Francisco, CA 94123; 415-931-4912; cnotaras@sbcglobal.net

An Asian species, *Begonia goegoensis*, (right) grows best with low light, cool temperatures, and high humidity – preferably in a terrarium. Discovered in the late 1800's hybridizers have used this plant as one of the crosses for *B*. 'Mumtaz', *B*. 'Calico Kew', and *B*. 'Gingersnap' among others. This is one of those plants with a reputation for being tricky to grow successfully. Photo and culture notes by Charles Henthorne

Entries/Classification ... Vacant

Grants Committee... Doris Happel, 1958 Anderson Lane, Palm Springs, FL, 33406; Ph: 561-434-3745; dbhappel@bellsouth.net

Internet Editor... Julie Vanderwilt, 720 Mission Park Drive, Santa Barbara, CA 93105; Ph. 805-687-8033 vanderwilt@cox.net

Historian... Jeanne Jones, 1415 Via Margarita, Palos Verdes Estates, CA 90274-2143; Ph: 310-378-7527

Horticultural Correspondent... Gregory Sytch, 6329 Alaska Avenue, New Port Richey, FL 34653-4301;

Ph: 727-841-9618; gsytch@cs.com

Judging... Maxine Zinman, 2770 Kimble Rd., Berryville, VA 22611; Ph: 540-955-4555;

begonia@visuallink.com

Members-at-Large... Sandy Boyd, 5 Walnut Circle, Chico, CA 95973; Ph: 530-891-5760

Membership... Paul Rothstein, 33 Kintyre Lane, Bella Vista, AR 72715; Phone 479-855-1665;

paroan2001@yahoo.com

Nomenclature... Gene Salisbury, P.O. Box 452, Tonkawa, OK 74653; Ph:580-628-5230; geneannsbcglobal.net

Parliamentarian... Linda Lawson, 525 Terrace Place, Norman, OK 73069-5034; Ph: 405-364-2425

Public Relations... Gene Salisbury, P.O. Box 452, Tonkawa, OK 74653; Ph:580-628-5230; geneann@sbcglobal.net

Research... Howard Berg, 16 Highview Terr.,

New Canaan, CT 06840; Ph: 203-966-7693; howber@optonline.net

Save Our Species Coordinator... Rekha Morris, 318 Woodland Cir., Pendleton, SC 29670;

shivavana@gmail.com

Seed Fund...Dean Turney, 467 Fulvia Street, Encinitas, CA 92024; dean@deansmail.us

Slide Library....Charles Jaros, 106 Pine Valley Ct. DeBary, FL. 32713: Ph: 407-687-5621; cjbegonia@yahoo.com

